

## DRAFT ADDENDUM/ERRATA

To

Preliminary Alternatives Analysis Report for the San Francisco to San Jose  
Section

June 2010

Attached are replacement pages for the Preliminary Alternatives Analysis Report that revises the unit items and unit costs for a 4-track configuration on a structure and in a trench. These corrections do not alter the conclusions of the Preliminary Alternatives Analysis, however given the nature of the changes, the Authority felt it necessary to publish this Addendum/Errata.

Basis for the changes: The project team received a question from a member of the public regarding the costs basis for the "Standard Structure" unit cost item. Upon review of the "Standard Structure" item and analysis of other similar cost items associated with the "Open Trench" design option, the following unit items have been updated and/or revised:

- Renamed unit item for "Standard Structure" to be "Standard Structure (2 tracks)"
- Renamed unit item for "Trench Short" to be "Trench Short (2 tracks) (<1000 ft)"
- Renamed unit item for "Trench Long" to be "Trench Long (2 tracks) (1000 + ft)"
- Added unit item for "Standard Structure (4 tracks)"
- Added unit item for "Trench Short (4 tracks) (<1000 ft)"
- Added unit item for "Trench Long (4 tracks) (1000 + ft)"
- Quantity for unit item "Retaining Wall" deleted for Open Trench design option
- Quantity for unit item "Containment Wall" deleted for Open Trench design option

These technical corrections and other minor calculation or typographical changes are addressed in the attached Addendum/Errata sheets (the corrections are highlighted and underscored in the attached sheets). The pages should be inserted in the Preliminary Alternatives Analysis to replace previously issued corresponding pages of the main body of the document in section 4.3, and the complete Appendix L.

Table 4-4  
Summary Comparison of Design Options for Subsection 1 – San Francisco

Evaluation Measure			1A - North of Mission Bay Drive to South of 16th Street		1B & 1C - South of 16th Street to North of Cesar Chavez Street		1D, 1E, 1F & 1G - North of Cesar Chavez Street to South Portal Tunnel No. 4	
			At Grade	Covered Trench/ Tunnel	At Grade	Covered Trench / Tunnel	At Grade	Covered Trench/ Tunnel
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options		Same for all options		Same for all options	
		Route length	Same for all options		Same for all options		Same for all options	
	Maximize connectivity and accessibility	Intermodal connections	Not applicable		Not applicable		Not applicable	
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Lowest	Higher than At Grade option, due to tunnel walls, drainage, ventilation, life safety, etc	High	High	High	High
		Capital cost (\$ 2009), does not include ROW	114 million	114 million	299 million	299 million	458 483-1,049 million	978 1,049 million
		Acquisition cost of additional ROW	Highest	Lowest	Lowest	Lowest	Highest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable		Not applicable		Not applicable	
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies		Consistent with adopted plans and policies	Inconsistent with adopted plans and policies	Consistent with adopted plans and policies	
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Construction would primarily occur within ultimate ROW	Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations	Construction would primarily occur within ultimate ROW	Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations	Construction would primarily occur within ultimate ROW	Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None		None			
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None		None		None	
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Approximately 10% of subsection has existing ROW <60', 10% is between 80'-89' and 80% is over 100'. Impacts due to grade separations at Mission Bay Drive and 16 <sup>th</sup> Street	Low; Approximately 10% of subsection has existing ROW <60', 10% is between 80'-89' and 80% is over 100'. Possibly some impacts due to ventilation structures	Low; Possibly some impacts due to ventilation structures	Low; Possibly some impacts due to ventilation structures	Low; Approximately 30% of subsection has existing ROW is between 80'-89' and 70% is over 100'; Possibly some impacts due to ventilation structures	Low; Nominal width for this option is 96'. Approximately 30% of subsection has existing ROW is between 80'-89' and 70% is over 100'; Possibly some impacts due to ventilation structures
	Properties with access affected	Properties with access affected	Access for properties affected due to grade separations	None	None		None	
	Local traffic effects around station	Increase in traffic congestion	Not applicable		Not applicable		Not applicable	

Table 4-5  
Summary Comparison of Design Options for Subsection 2 – Brisbane, South San Francisco, San Bruno, Millbrae

Evaluation Measure			2A - South Portal Tunnel No. 4 to South of Colma Creek	2B - South of Colma Creek to South of I-380			2C - South of I-380 to South of Center Street				
			At Grade	Aerial Viaduct	Berm	At Grade	Aerial Viaduct	Berm	At Grade	Open Trench (HST Only)	Covered Trench/Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options	Same for all options	Same for all options				
		Route length	Same for all options	Same for all options	Same for all options	Same for all options	Same for all options				
	Maximize connectivity and accessibility	Intermodal connections	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable				
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Low	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Aerial Viaduct option, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	74 million	-	66 million	-	281-475 273-478 million	279-236-441 million	212 169-408 million	212-443 169-273 million	374-475 478 million
		Acquisition cost of additional ROW	Highest	Medium	Medium	Highest	Medium	Medium	Highest	Medium	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable	Not applicable			Not applicable				
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies			Consistent with adopted plans and policies				
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Construction would primarily occur within ultimate ROW	Medium; Nominal width with TCE for this option is 103'. Approximately 15% of subsection is <90' and 85% over 100'	Medium; Nominal width with TCE for this option is 109'. Approximately 15% of subsection is <90' and 85% over 100'	Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 103'. Approximately 70% of subsection is <90' and 30% over 100'. Public ROW available for TCE	Low; Nominal width with TCE for this option is 109'. Approximately 70% of subsection is <90' and 30% over 100'. Public ROW available for TCE	Construction would primarily occur within ultimate ROW	Approximately 70% of subsection is <90' and 30% over 100'. Public ROW available for TCE	Approximately 70% of subsection is <90' and 30% over 100'. Public ROW available for TCE
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	Sierra Point Lumber Spur and South San Francisco Yard	Not feasible to maintain connections to South San Francisco Yard and Granite Rock/Central	South San Francisco Yard and Granite Rock/Central Concrete Trackage	South San Francisco Yard and Granite Rock/Central Concrete Trackage	None				

Subsection 2 continued

Evaluation Measure			2D - South of Center Street to South of Millbrae Avenue		
			At Grade	Open Trench (HST Only)	Covered Trench/Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options		
		Route length	Same for all options		
	Maximize connectivity and accessibility	Intermodal connections	Same for all options		
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	87-61-356 million	95-195-61-157 million	330-356 million
		Acquisition cost of additional ROW	Highest	Medium	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Same for all options (Millbrae HST Station in this subsection)		
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Inconsistent with adopted plans and policies		Consistent with adopted plans and policies
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Approximately 80% of subsection has existing ROW over 100'	Low; Nominal width with TCE for this option is 120'. Approximately 80% of subsection has existing ROW over 100'
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None		
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None	11' wide and 60' wide storm drains south of Hillcrest Boulevard	
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Approximately 20% of subsection has existing ROW <90' and 80% is over 100'	Low; Approximately 20% of subsection has existing ROW <90' and 80% is over 100'	Low; Approximately 20% of subsection has existing ROW <90' and 80% is over 100', Possibly some due to ventilation structures
	Properties with access affected	Properties with access affected	None		
	Local traffic effects around station	Increase in traffic congestion	Same for all options		
	Local traffic effects along alignment and at grade crossings	Identify streets with permanent loss of traffic lanes due to ultimate ROW requirements and identify traffic effects at grade crossings	None		

Table 4-6  
Summary Comparison of Design Options for Subsection 3 – Burlingame, San Mateo

Evaluation Measure			3A - South of Millbrae Avenue to South of Mills Creek			
			Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options			
		Route length	Same for all options			
	Maximize connectivity and accessibility	Intermodal connections	Not applicable			
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than At Grade option due to aerial structure	Lowest	Higher than Aerial Viaduct and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	-	9 12 million	132 90 million	345 million
		Acquisition cost of additional ROW	-	Highest	Medium	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable			
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies			
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 102'. Existing ROW is over 100' throughout the subsection	Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Existing ROW is over 100' throughout the subsection	Low; Nominal width with TCE for this option is 120'. Existing ROW is over 100' throughout the subsection
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None			
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None	None	2-83"x53" Oval CIP storm drain	
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Nominal width for this option is 79'. Existing ROW is over 100' throughout the subsection	Low; Nominal width for this option is 96'. Existing ROW is over 100' throughout the subsection	Low; Nominal width for this option is 96'. Existing ROW over 100' throughout the subsection	Low; Nominal width for this option is 96'. Existing ROW over 100' throughout the subsection, Possibly some due to ventilation structures
	Properties with access affected	Properties with access affected	None			
	Local traffic effects around station	Increase in traffic congestion	Not applicable			
	Local traffic effects along alignment and at grade crossings	Identify streets with permanent loss of traffic lanes due to ultimate ROW requirements and identify traffic effects at grade crossings	None			

Subsection 3 continued

Evaluation Measure			3B - South of Mills Creek to North of Villa Terrace				
			Aerial Viaduct	Berm	At Grade	Open Trench	Covered Trench/Tunnel
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options				
		Route length	Same for all options				
	Maximize connectivity and accessibility	Intermodal connections	Not applicable				
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	494 245 million	-	-	433 413 million	937 million
		Acquisition cost of additional ROW	Medium	Medium	Highest	Medium	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable				
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies; strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and land uses	Consistent with adopted plans and policies	Consistent with adopted plans and policies	
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 103'. Approximately 70% of subsection has existing ROW over 100'	Low; Nominal width with TCE for this option is 109'. Approximately 70% of subsection has existing ROW over 100'	Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Approximately 70% of subsection has existing ROW over 100'	Low; Nominal width with TCE for this option is 120'. Approximately 70% of subsection has existing ROW over 100'
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None				
	Disruption / relocation of utilities	Identify major utilities requiring relocation	60kV electric junction line near 9th Avenue	60kV electric junction line near 9th Avenue	None	2-90" RCP near Oak Grove Avenue	
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Nominal width for this option is 79'. Approximately 20% of subsection has existing ROW between 70'-79' and 80% is over 80'	Low; Nominal width for this option is 85'. Approximately 20% of subsection has existing ROW <80', and 80% is over 90'	High; Nominal width for this option is 96'. Approximately 20% of subsection has existing ROW <90', 10% is between 90'-99' and 70% is over 100', impacts due to grade separations at Broadway, Oak Grove Avenue, North Lane, South Lane, Howard Avenue, Bayswater Avenue and Peninsula Avenue	Low; Nominal width for this option is 96'. Approximately 20% of subsection has existing ROW <90', 10% is between 90'-99' and 70% is over 100'	Low; Nominal width for this option is 96'. Approximately 20% of subsection has existing ROW <90'', 10% is between 90'-99' and 70% is over 100', Possibly some due to ventilation structures



Subsection 3 continued

Evaluation Measure			3C & 3D - North of Villa Terrace to North of Hayward Park Station				3E - North of Hayward Park Station to North of Highway 92
			Aerial Viaduct	Berm	Open Trench	Covered Trench/Tunnel	At Grade
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options				Same for all options
		Route length	Same for all options				Same for all options
	Maximize connectivity and accessibility	Intermodal connections	Not applicable				Not applicable
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm option, due to aerial structure	Lowest	Higher than Berm option, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Low
		Capital cost (\$ 2009), does not include ROW	265 313 million	-	425 405 million	894 million	30 million
		Acquisition cost of additional ROW	Medium	Medium	Medium	Lowest	Highest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable				Not applicable
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies; strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and land uses	Inconsistent with adopted plans and policies		Consistent with adopted plans and policies
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	High; Nominal width with TCE for this option is 103'. Approximately 70% of existing ROW less than 100'	High; Nominal width with TCE for this option is 109'. Approximately 70% of existing ROW less than 100'	High; Nominal width with TCE for this option is 120'. Approximately 70% of existing ROW less than 100'	High; Nominal width with TCE for this option is 120'. Approximately 70% of existing ROW less than 100'	Low; Construction would primarily occur within ultimate ROW
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None				None
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None		10' wide storm drain near Villa Terrace		None
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Medium; Nominal width for this option is 79'. Approximately 15% of subsection has existing ROW <70', 20% is between 70'-79' and 65% is over 80'	Medium; Nominal width for this option is 85'. Approximately 35% of subsection has existing ROW <80', 15% is between 80'-89' and 50% is over 90'	Medium; Nominal width for this option is 96'. Approximately 50% of subsection has existing ROW <90', 15% between 90'-99' and 35% over 100'	Medium; Nominal width for this option is 96'. Approximately 50% of subsection has existing ROW <90', 15% is between 90'-99' and 35% is over 100', Possible impacts due to ventilation structures	Low; Nominal width for this option is 96'. Existing ROW is over 100' throughout this subsection
	Properties with access affected	Properties with access affected	Access for properties affected due to ultimate ROW requirements	Access for properties affected due to ultimate ROW requirements	Access for properties affected due to ultimate ROW requirements		None

Table 4-7  
Summary Comparison of Design Options for Subsection 4 – San Mateo, Belmont, San Carlos, Redwood City

Evaluation Measure			4A - North of Highway 92 to South of 25th Avenue		4B - South of 25th Avenue to South of Cordilleras Creek				
			At Grade	Berm	Aerial Viaduct	Berm	At Grade	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options				
		Route length	Same for all options	Same for all options	Same for all options				
	Maximize connectivity and accessibility	Intermodal connections	Not applicable	Not applicable	Not applicable				
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Low	Low	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than other options, due to ventilation, life safety, etc	Higher than other options, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	-	40 million	431 523 million	229-1,635 million	787 229-1,635 million	1,742 million	1,635 million
		Acquisition cost of additional ROW	Highest	Medium	Medium	Medium	Highest	Lowest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable	Not applicable	Not applicable				
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies	Consistent with adopted plans and policies				
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Construction would primarily occur within ultimate ROW; distance from Highway 92 to 25th Avenue is too short to make transition to aerial	Medium; Nominal width with TCE for this option is 107'. Approximately 70% of subsection has existing ROW less than 100'	Medium; Nominal width with TCE for this option is 102'. Approximately 55% of existing ROW less than 100'	Medium; Nominal width with TCE for this option is 107'. Approximately 55% of existing ROW less than 100'	Low; Construction would primarily occur within ultimate ROW	Medium; Nominal width with TCE for this option is 116'. Approximately 55% of existing ROW less than 100'	Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None	None	None				
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None	None	None			60" Storm drain pipe near Harbor Boulevard	None
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Nominal width for this option is 96'. Approximately 70% of subsection has existing ROW <80' and 30% over 100', impacts due to grade separation at 25th Avenue	Low; Nominal width for this option is 85'. Approximately 70% of subsection has existing ROW <80' and 30% over 100', impacts	Low; Nominal width for this option is 79'. Approximately 20% of subsection has existing ROW <70', 10% between 70'-79', and 70% over 80'	Low; Nominal width for this option is 85'. Approximately 30% of subsection has existing ROW <80', 10% between 80'-89' and 60% over 90'	Medium; Nominal width for this option is 96'. Approximately 40% of subsection has existing ROW <90', 20% between 90'-99' and 40% over 100', impacts due to grade adjustments at Ralston Avenue, Harbor Boulevard and Holly Street	Low; Nominal width for this option is 96'. Approximately 40% of subsection has existing ROW <90', 20% between 90'-99' and 40% over 100'	Low; Possibly some impacts due to ventilation structures



Subsection 4 (continued)

Evaluation Measure			4C - South of Cordilleras Creek to North of Woodside Road					4D - North of Woodside Road to North of 5th Avenue					
			Aerial Viaduct	Berm	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)	Aerial Viaduct (HST Only)	Berm	At Grade (Caltrain Only)	Open Trench (HST Only)	Covered Trench/Tunnel (HST Only)	Deep Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options			Same for all options	Same for all options	Same for all options			
		Route length	Same for all options	Same for all options	Same for all options			Same for all options	Same for all options	Same for all options			
	Maximize connectivity and accessibility	Intermodal connections	Not applicable	Not applicable	Not applicable			Same for all options	Same for all options	Same for all options			
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm option, due to aerial structure	Lowest	Higher than Berm option, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm option, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	157-447 200-481 million	-	325 308 million	765 million	447 481 million	37 70 million	-	37 70-159 million	112 79 million	159 million	128 million
		Acquisition cost of additional ROW	Medium	Medium	Medium	Lowest	Lowest	Medium	Medium	Highest	Medium	Lowest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Same for all options except Deep Tunnel (Potential Redwood City station in this subsection)	Same for all options except Deep Tunnel (Potential Redwood City station in this subsection)	Same for all options except Deep Tunnel (Potential Redwood City station in this subsection)			Not applicable	Not applicable	Not applicable			
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Inconsistent with adopted plans and policies; strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and	Inconsistent with adopted plans and policies			Consistent with adopted plans and policies	Inconsistent with adopted plans and policies; strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and	Inconsistent with adopted plans and policies	Consistent with adopted plans and policies		

Table 4-8  
Summary Comparison of Design Options for Subsection 5 – Atherton, Menlo Park

Evaluation Measure			5A - North of 5th Avenue to South of 5th Avenue		5B - South of 5th Avenue to South of Ravenswood Avenue					
			At Grade	Deep Tunnel (HST Only)	Aerial Viaduct	Berm	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options		Same for all options	Same for all options	Same for all options			
		Route length	Same for all options		Same for all options	Same for all options	Same for all options			
	Maximize connectivity and accessibility	Intermodal connections	Not applicable		Not applicable	Not applicable	Not applicable			
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Low	Higher than At Grade option, due to ventilation, life safety, etc	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	11-160 million	160 million	168-690 224-690 million	-	98-563 million	355-867 337-772 million	833-998 million	563-998 million
		Acquisition cost of additional ROW	Highest	Lowest	Medium	Medium	Highest	Medium	Lowest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable		Not applicable	Not applicable	Not applicable			
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies	Consistent with adopted plans and policies	Consistent with adopted plans and policies; Strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and land uses	Consistent with adopted plans and policies			
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Construction would primarily occur within ultimate ROW	Low; Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations	Medium; Nominal width with TCE for this option is 103'. Existing ROW less than 100' throughout this subsection	Medium; Nominal width with TCE for this option is 109'. Existing ROW less than 100' throughout this subsection	Low; Construction would primarily occur within ultimate ROW	Medium; Nominal width with TCE for this option is 120'. Existing ROW less than 100' throughout this subsection	Medium; Nominal width with TCE for this option is 120'. Existing ROW less than 100' throughout this subsection	Low; Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	None		None	None	None			
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None		None	None	None			

Subsection 6 Continued

Evaluation Measure			6B - South of Embarcadero Road to South of Churchill Avenue					
			Aerial Viaduct	Berm	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options			
		Route length	Same for all options	Same for all options	Same for all options			
	Maximize connectivity and accessibility	Intermodal connections	Not applicable	Not applicable	Not applicable			
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	52 71-184 million	-	41-176 million	123 116 million	321 million	176-184 million
		Acquisition cost of additional ROW	Medium	Medium	Highest	Medium	Lowest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable	Not applicable	Not applicable			
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies; Strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and land uses	Consistent with adopted plans and policies			
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 103'. Existing ROW less than 100' throughout this subsection. Public ROW is available	Low; Nominal width with TCE for this option is 109'. Existing ROW less than 100' throughout this subsection. Public ROW is available	Low; Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Existing ROW less than 100' throughout this subsection. Public ROW is available	Low; Nominal width with TCE for this option is 120'. Existing ROW less than 100' throughout this subsection. Public ROW is available	Low; Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	Not applicable	Not applicable	Not applicable			
	Disruption / relocation of utilities	Identify major utilities requiring relocation	None	None	None	Two 24" RCP water lines near Churchill Avenue	Two 24" RCP water lines near Churchill Avenue	None

Subsection 6 Continued

Evaluation Measure			6C - South of Churchill Avenue to North of East Meadow Drive				
			Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options				
		Route length	Same for all options				
	Maximize connectivity and accessibility	Intermodal connections	Not applicable				
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Low	Lowest	Higher than At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	133 171-406 million	46-302 million	278 263 million	694 million	302-406 million
		Acquisition cost of additional ROW	Medium	Highest	Medium	Lowest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable				
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies				
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 103'. Approximately 50% of existing ROW over 100'. Public ROW is available	Low; Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Approximately 50% of existing ROW over 100'. Public ROW is available	Low; Nominal width with TCE for this option is 120'. Approximately 50% of existing ROW over 100'. Public ROW is available	Low; Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	Not applicable				
	Disruption / relocation of utilities	Identify major utilities requiring relocation	Not applicable				
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Nominal width for this option is 79'. Existing ROW is >80' throughout this subsection	Low; Nominal width for this option is 96'. Approximately 55% of subsection has existing ROW <90' and 45% is over 100'	Low; Nominal width for this option is 96'. Approximately 55% of subsection has existing ROW <90' and 45% is over 100'	Low; Nominal width for this option is 96'. Approximately 55% of subsection has existing ROW <90' and 45% is over 100'; Possibly some due to ventilation structures	Low; Possibly some due to ventilation structures
	Properties with access affected	Properties with access affected	None				
	Local traffic effects around station	Increase in traffic congestion	Not applicable				
	Local traffic effects along alignment and at grade crossings	Identify streets with permanent loss of traffic lanes due to ultimate ROW requirements and identify traffic effects at grade crossings	Loss of 1 to 2 traffic lanes along Alma Street				None
Environmental Resources	Waterways and wetlands and natural preserves or	Waterways (acres of waterways within ultimate ROW)	Lower impacts than Trench options	Lower impacts than Trench options	0.25 acres	0.25 acres	Lower impacts than At-Grade option

Subsection 6 Continued

Evaluation Measure			6D - North of East Meadow Drive to North of Adobe Creek					
			Aerial Viaduct	Berm	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options			
		Route length	Same for all options	Same for all options	Same for all options			
	Maximize connectivity and accessibility	Intermodal connections	Not applicable	Not applicable	Not applicable			
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	44 59-154 million	-	112-186 72-184 million	112 105 million	272 million	154-186 184 million
		Acquisition cost of additional ROW	Medium	Medium	Highest	Medium	Lowest	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable	Not applicable	Not applicable			
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies	Consistent with adopted plans and policies			
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 103'. Approximately 75% of existing ROW over 100'. Public ROW is available	Low; Nominal width with TCE for this option is 109'. Approximately 75% of existing ROW over 100'. Public ROW is available	Low; Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Approximately 75% of existing ROW over 100'. Public ROW is available	Low; Nominal width with TCE for this option is 120'. Approximately 75% of existing ROW over 100'. Public ROW is available	Low; Construction would primarily occur within ultimate ROW; TCE required at tunnel portal locations
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	Not applicable	Not applicable	Not applicable			
	Disruption / relocation of utilities	Identify major utilities requiring relocation	Not applicable	Not applicable	Not applicable			

Table 4-10  
Summary Comparison of Design Options for Subsection 7 – Mountain View, Sunnyvale

Evaluation Measure			7A & 7B - North of Adobe Creek to North of Stevens Creek				
			Aerial Viaduct	Berm	At Grade	Open Trench	Covered Trench/Tunnel
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options		
		Route length	Same for all options	Same for all options	Same for all options		
	Maximize connectivity and accessibility	Intermodal connections	Same for all options	Same for all options	Same for all options		
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	344 424 million	-	155 154 million	615 583 million	1,433 million
		Acquisition cost of additional ROW	Medium	Medium	Highest	Medium	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Same for all options (Potential Mountain View HST station in this subsection)	Same for all options (Potential Mountain View HST station in this subsection)	Same for all options (Potential Mountain View HST station in this subsection)		
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies; Strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and land uses	Consistent with adopted plans and policies		
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 103'. Approximately 60% of existing ROW over 100'. Public ROW is available	Low; Nominal width with TCE for this option is 109'. Approximately 60% of existing ROW over 100'. Public ROW is available	Low; Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Approximately 60% of existing ROW over 100'. Public ROW is available	Low; Nominal width with TCE for this option is 120'. Approximately 60% of existing ROW over 100'. Public ROW is available
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	Not applicable	Not applicable	Not applicable		
	Disruption / relocation of utilities	Identify major utilities requiring relocation	Not applicable	Not applicable	Not applicable		
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Low; Nominal width for this option is 79'. Exiting ROW is >90' throughout this subsection	Low; Nominal width for this option is 85'. Exiting ROW is >90' throughout this subsection	Medium; Nominal width for this option is 96'. Approximately 40% of subsection has exiting ROW between 90'-99' and 60% over 100' and impacts due to the grade separations at Rengstorff Avenue and Castro Street	Low; Nominal width for this option is 96'. Approximately 40% of subsection has exiting ROW between 90'-99' and 60% over 100'	Low; Nominal width for this option is 96'. Approximately 40% of subsection has exiting ROW between 90'-99' and 60% over 100'; Possibly some due to ventilation structures
	Properties with access affected	Properties with access affected	None	None	Access for properties affected due to the grade separations at Rengstorff Avenue and Castro Street	None	None



Subsection 7 Continued

Evaluation Measure			7C & 7D - North of Stevens Creek to North of Fair Oaks Avenue				
			Aerial Viaduct	Berm	At Grade	Open Trench	Covered Trench/Tunnel
Design Objectives	Maximize ridership / revenue potential	Travel time	Same for all options	Same for all options	Same for all options		
		Route length	Same for all options	Same for all options	Same for all options		
	Maximize connectivity and accessibility	Intermodal connections	Not applicable	Not applicable	Not applicable		
	Minimize operating and capital costs	Operating and Maintenance (O&M) costs (relative costs associated with different vertical alignment options)	Higher than Berm and At Grade options, due to aerial structure	Lowest	Lowest	Higher than Berm and At Grade options, due to retaining walls, drainage, etc	Higher than Open Trench option, due to ventilation, life safety, etc
		Capital cost (\$ 2009), does not include ROW	99 219 million	-	107 128 million	540 510 million	1,323 million
		Acquisition cost of additional ROW	Medium	Medium	Highest	Medium	Lowest
Land Use	Development potential for TOD within walking distance of station	Development potential for TOD within 1/2 mile of station location	Not applicable	Not applicable	Not applicable		
	Consistency with other planning efforts and adopted plans	Qualitative analysis of applicable planning and policy documents	Consistent with adopted plans and policies	Consistent with adopted plans and policies; Strong local opposition to this type of structure; the berm structure (wall) would create a perceived barrier through this area which is not consistent with the local communities' character and land uses	Consistent with adopted plans and policies		
Constructability	Constructability, access for construction, within existing transportation ROW (does not include station constructability impacts)	Need for temporary construction easements (TCE)	Low; Nominal width with TCE for this option is 103'. Approximately 85% of existing ROW is less than 100'. Public ROW is available	Low; Nominal width with TCE for this option is 109'. Approximately 85% of existing ROW is less than 100'. Public ROW is available	Low; Construction would primarily occur within ultimate ROW	Low; Nominal width with TCE for this option is 120'. Approximately 85% of existing ROW is less than 100'. Public ROW is available	Low; Nominal width with TCE for this option is 120'. Approximately 85% of existing ROW is less than 100'. Public ROW is available
	Disruption to existing railroads	Identify existing freight rail and other rail service connections	Not applicable	Not applicable	Not applicable		
	Disruption / relocation of utilities	Identify major utilities requiring relocation	Not applicable	Not applicable	Not applicable		
Disruption to Communities	Displacements	Potential impact on properties due to ultimate ROW requirements and grade separations	Medium; Nominal width for this option is 79'. Approximately 10% of subsection has existing ROW <70', 60% between 70'-79' and 30% over 80'	Medium; Nominal width for this option is 85'. Approximately 70% of subsection has existing ROW <80', 10% between 80'-89' and 20% over 90'	Medium; Nominal width for this option is 96'. Approximately 80% of subsection has existing ROW <90', 5% between 90'-99' and 15% over 100'; impacts due to grade separations at Mary Avenue and Sunnyvale Avenue	Medium; Nominal width for this option is 96'. Approximately 80% of subsection has existing ROW <90', 5% between 90'-99' and 15% over 100'	Medium; Nominal width for this option is 96'. Approximately 80% of subsection has existing ROW <90', 5% between 90'-99' and 15% over 100'; Possibly some due to ventilation structures
	Properties with access affected	Properties with access affected	None	None	Access for properties affected due to the grade separations at Mary Avenue and Sunnyvale Avenue	None	None

Subsection 0	OA (2.2 miles)	OB (2.2 miles)	OC (1.0 miles)	OD (2.3 miles)
	Covered Trench/ Tunnel	Covered Trench/Tunnel	At Grade	Covered Trench/ Tunnel
Capital Cost (in Millions) does not include ROW	\$3,000 (\$YOE) (Estimate provided by the TJPA, 2010)	\$3,000 (\$YOE) (Estimate provided by the TJPA, 2010)	\$200 (\$YOE)	\$3,000+ (\$YOE)
Acquisition Cost of Permanent ROW	Medium	Medium	Lowest	Highest
Notes:	1. Inclusive of train box and station (in year of expenditure \$) 2. Includes \$100M for reconstruction of 4th & King. 3. Assumed CHSRA contribution of \$1B from CHSRA 2009 Business Plan.	1. Assumed HST contribution of \$1B towards the total construction costs.	1. Based on MTC SF/Silicon Investment Strategy dated June 2009. 2. Assumed costs to be doubled that of the 2 platform option.	1. Inclusive of train box and station (in year of expenditure \$) 2. Includes \$100M for reconstruction of 4th & King. 3. \$3 billion cost based on TTC estimate for 2.2 mile tunnel and terminal.

Subsection 1	1A (0.3 miles)		1B & 1C (1.0 miles)		1D, 1E, 1F & 1G (3.5 miles)	
	At Grade	Covered Trench/ Tunnel	At Grade	Covered Trench/ Tunnel	At Grade	Covered Trench/ Tunnel
Capital Cost (\$2009 in Millions) does not include ROW	\$44 (2 tracks)	\$70 (2 tracks)	\$21 (2 tracks)	\$278 (2 tracks)	\$ 458 483 (4 tracks) \$71 (2 tracks)	\$978 (2 tracks)
Acquisition Cost of Permanent ROW	Lowest	Medium	Lowest	Lowest	Highest	Lowest
Notes:	2 tracks - 1. Grade separations at Common St and 16th St; 2. ROW take considers the parcels impacted by new grade separations; 3. Two tracks on existing Caltrain alignment for approach to 4th/King station. <i>Must be combined with 2 track covered trench/tunnel option.</i>	2 tracks - 1. Two tracks on new alignment for approach to TTC; <i>Must be combined with 2 track at grade option.</i> 2. Alignment under 7th St.	2 tracks - 1. Two tracks on existing Caltrain alignment for approach to 4th/King station. <i>Must be combined with 2 track covered trench/tunnel option.</i>	2 tracks - 1. Drilled & blast tunneling method; 2. Two tracks on new alignment for approach to TTC. <i>Must be combined with 2 track at grade option.</i>	4 tracks - 1. Two tracks on existing Caltrain alignment for approach to 4th/King station. 2. Two tracks on new alignment for approach to TTC using combination of tunneling and aerial structures. 3. Caltrain Bayshore Station. 2 tracks - 1. Two tracks on existing Caltrain alignment for approach to 4th/King station. <i>Must be combined with 2 track covered trench/tunnel option.</i> 2. Caltrain Bayshore Station.	2 tracks - 1. Drilled & blast tunneling method; 2. Two tracks on new alignment for approach to TTC. <i>Must be combined with 2 track at grade option.</i>

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)				Tunnel (2 tracks - Mined)			
Subsection 1				Base: 2009 (3rd Quarter)	A				A			
					Start: 200 + 00	End: 215 + 00	0.28 Miles		Start: 200 + 00	End: 215 + 00	0.28 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 200 + 00	End: 215 + 00	0.28 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 200 + 00	End: 215 + 00	0.28 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total							0.28	\$ 596,655			0.00	\$ -
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$ -			0.28	\$ 1,335,273
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160									
Four Track Section - Total							0.00	\$ -			0.00	\$ -
Four-track Section - At Grade	Mile	\$	4,200,448				0	\$ -			0	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320				0	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320									
Single Track - Total							0	\$ -			0	\$ -
5 Single Track Section - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0	\$ -			0	\$ -
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0	\$ -			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -
Earthwork Items							3.79	\$ 34,909			3.79	\$ 34,909
1 Site Preparation - Undeveloped	Acre	\$	9,216				0.00	\$ -			96800.00	\$ 624,476
2 Total Cut	CY	\$	6				0.00	\$ -			38720.00	\$ 243,546
3 Total Fill	CY	\$	6				0.00	\$ -			0.00	\$ -
4 Borrow	CY	\$	13				0.00	\$ -			58080.00	\$ 730,637
5 Spoil	CY	\$	13				0.09	\$ 553			1.20	\$ 7,373
6 Landscape erosion Control	Acre	\$	6,144				0.00	\$ -				\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384					\$ 1,773				\$ 82,047
8 Special Drainage Facilities	5% Earthwork											
Structures, Tunnels, Walls							0.00	\$ -			0.00	\$ -
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008									
2 High Structure	Mile	\$	40,424,448									
3 Long Span Structure	Mile	\$	61,919,232									
4 Waterway Crossing - Primary	Mile	\$	85,342,208									
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				0.00	\$ -			0.00	\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264									
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312									
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896									
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000									
Double Track TBM (<6 Miles)	Mile	\$	106,637,312									
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896									
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952									
12 Crossovers	ea	\$	442,368									
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.28	\$ 37,285,818
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224				0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336									
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856									
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704					\$ -			0.28	\$ 3,366,109
17 Retaining Walls	Mile	\$	8,613,888				0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456					\$ -				\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624					\$ -				\$ -
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792					\$ -				\$ -
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -				\$ -
Grade Separations												
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				2	\$ 26,568,704				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528					\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				0	\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				0	\$ -			0	\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				0	\$ -			0	\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -
7 Street Bridging HSR Trench	ea	\$	1,398,784					\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)				Tunnel (2 tracks - Mined)			
Subsection 1				Base: 2009 (3rd Quarter)	A				A			
					Start: 200 + 00	End: 215 + 00	0.28 Miles		Start: 200 + 00	End: 215 + 00	0.28 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 200 + 00	End: 215 + 00	0.28 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 200 + 00	End: 215 + 00	0.28 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
8	Minor Crossing Closures	ea	\$	87,040				\$ -				\$ -
Building Items												
1	Intermediate Passenger Stations	Each	\$	-				\$ -				\$ -
2	Terminal Passenger Stations	Each	\$	-				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$ -				\$ -
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$ -				\$ -
3	Maintenance Facility	Each	\$	123,921,884				\$ -				\$ -
4	Parking - Structures	space	\$	-				\$ -				\$ -
5	Parking - At Grade	space	\$	-				\$ -				\$ -
Rail & Utility Relocation												
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$ -				\$ -
3	Single Track Removal	Mile	\$	130,048				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$ -				\$ -
ROW (NOT INCLUDED)												
ROW required for each segment												
1	Dense Urban	Acre	\$	2,786,321				\$ -				\$ -
2	Urban	Acre	\$	1,371,510				\$ -				\$ -
3	Dense Suburban	Acre	\$	908,134				\$ -				\$ -
4	Suburban	Acre	\$	208,418				\$ -				\$ -
5	Undeveloped	Acre	\$	3,642				\$ -				\$ -
ROW required for Temp. Construction Easement												
1	Dense Urban	Acre						\$ -				\$ -
2	Urban	Acre						\$ -				\$ -
3	Dense Suburban	Acre						\$ -				\$ -
4	Suburban	Acre						\$ -				\$ -
5	Undeveloped	Acre						\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities												
6	Dense Urban	Acre	\$	2,786,321				\$ -				\$ -
7	Urban	Acre	\$	1,371,510				\$ -				\$ -
8	Dense Suburban	Acre	\$	908,134				\$ -				\$ -
9	Suburban	Acre	\$	208,418				\$ -				\$ -
10	Undeveloped	Acre	\$	3,642				\$ -				\$ -
	Environmental Mitigation = 3% Line Costs							\$ 816,078				\$ 1,311,306
System Elements												
1	Signaling (ATC)	Mile	\$	2,070,000			0.28	\$ 588,068			0.28	\$ 588,068
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.28	\$ 153,409			0.28	\$ 153,409
3	Wayside Protection System	Mile	\$	108,000			0.28	\$ 30,682			0.28	\$ 30,682
Electrification Items												
1	Traction Power supply	Mile	\$	1,170,000			0.28	\$ 332,386			0.28	\$ 332,386
2	Traction Power Distribution	Mile	\$	1,485,000			0.28	\$ 421,875			0.28	\$ 421,875
								\$ 29,545,092				\$ 46,547,914
	Program Implementation Costs (per screening)							\$ 7,533,998				\$ 11,869,718
	Program Implementation Costs											
	Contingencies (per screening) (25%)							\$ 7,386,273				\$ 11,636,978
	Subtotal							\$ 44,465,363				\$ 70,054,611
	Subtotal Rounded							\$ 44,000,000				\$ 70,000,000

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade			Tunnel (2 tracks - Mined)					
Subsection 1				Base: 2009 (3rd Quarter)	B			B					
					Start: 215 + 00	End: 255 + 00	0.76 Miles	Start: 215 + 00	End: 255 + 00	0.76 Miles			
Subsection Details						Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)					Start: 215 + 00	End: 255 + 00	0.76 Miles			Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 215 + 00	End: 255 + 00	0.76 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles			Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
					Start: 0 + 00		0.00 Miles						
Double Track Section - Total													
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.76 \$	1,591,079				0.00 \$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00 \$	-				0.00 \$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00 \$	-				0.76 \$	3,560,727
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00 \$	-				0.00 \$	-
Four Track Section - Total													
Four-track Section - At Grade	Mile	\$	4,200,448				0.00 \$	-				0.00 \$	-
Four-Track Section - On Structure	Mile	\$	9,400,320				0 \$	-				0.00 \$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0 \$	-				0.00 \$	-
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00 \$	-				0.00 \$	-
Single Track - Total													
5 Single Track Section - At Grade	Mile	\$	1,549,312				0 \$	-				0.00 \$	-
6 Single Track Section - On structure	Mile	\$	2,350,080				0 \$	-				0.00 \$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0 \$	-				0.00 \$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080				0 \$	-				0.00 \$	-
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0 \$	-				0.00 \$	-
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0 \$	-				0.00 \$	-
Earthwork Items													
1 Site Preparation - Undeveloped	Acre	\$	9,216				10.10 \$	93,091				10.10 \$	93,091
2 Total Cut	CY	\$	6				0.00 \$	-				652666.00 \$	4,210,479
3 Total Fill	CY	\$	6				261066.00 \$	1,642,084				261066.00 \$	1,642,084
4 Borrow	CY	\$	13				261066.00 \$	3,284,169				0.00 \$	-
5 Spoil	CY	\$	13				0.00 \$	-				391600.00 \$	4,926,265
6 Landscape erosion Control	Acre	\$	6,144				0.09 \$	553				8.09 \$	49,705
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.76 \$	109,382				0.00 \$	-
8 Special Drainage Facilities	5% Earthwork						\$	256,464				\$	546,081
Structures, Tunnels, Walls													
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00 \$	-				0.00 \$	-
Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00 \$	-				0.00 \$	-
2 High Structure	Mile	\$	40,424,448				\$	-				\$	-
3 Long Span Structure	Mile	\$	61,919,232				\$	-				\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-				\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				0.00 \$	-				\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-				\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-				\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00 \$	-				0.76 \$	111,278,545
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$	-				\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-					
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				\$	-					
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-				\$	-
12 Crossovers	ea	\$	442,368				\$	-				\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00 \$	-				0.00 \$	-
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224				0.00 \$	-				\$	-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336										
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-				\$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856										
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$	-				0.76 \$	8,976,291
17 Retaining Walls	Mile	\$	8,613,888				0.00 \$	-				\$	-
18 Containment Walls	Mile	\$	5,907,456				\$	-				\$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-				\$	-
Four Track Drill & Blast	Mile	\$	293,775,360				\$	-				\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$	-					
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$	-					
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$	-					
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00 \$	-				\$	-
Grade Separations													
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-				\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-				\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$	-				\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-				\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				0 \$	-				\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-				\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				0 \$	-				\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-				\$	-
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-				\$	-



COST ELEMENTS			UNIT	UNIT PRICE	At-Grade			Tunnel (2 tracks - Mined)						
Subsection 1				Base: 2009 (3rd Quarter)	B			B						
					Start: 215 + 00	End: 255 + 00	0.76 Miles	Start: 215 + 00	End: 255 + 00	0.76 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)					Start: 215 + 00	End: 255 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 215 + 00	End: 255 + 00	0.76 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
8	Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-	
Building Items														
1	Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-	
2	Terminal Passenger Stations	Each	\$	-				\$	-			\$	-	
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-	
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-	
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-	
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-	
3	Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-	
4	Parking - Structures	space	\$	-				\$	-			\$	-	
5	Parking - At Grade	space	\$	-				\$	-			\$	-	
Rail & Utility Relocation														
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-	
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-	
3	Single Track Removal	Mile	\$	130,048				\$	-			\$	-	
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-	
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-	
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-	
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-	
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-	
ROW (NOT INCLUDED)														
ROW required for each segment														
1	Dense Urban	Acre	\$	2,786,321				\$	-			\$	-	
2	Urban	Acre	\$	1,371,510				\$	-			\$	-	
3	Dense Suburban	Acre	\$	908,134				\$	-			\$	-	
4	Suburban	Acre	\$	208,418				\$	-			\$	-	
5	Undeveloped	Acre	\$	3,642				\$	-			\$	-	
ROW required for Temp. Construction Easement														
1	Dense Urban	Acre						\$	-			\$	-	
2	Urban	Acre						\$	-			\$	-	
3	Dense Suburban	Acre						\$	-			\$	-	
4	Suburban	Acre						\$	-			\$	-	
5	Undeveloped	Acre						\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities														
6	Dense Urban	Acre	\$	2,786,321				\$	-			\$	-	
7	Urban	Acre	\$	1,371,510				\$	-			\$	-	
8	Dense Suburban	Acre	\$	908,134				\$	-			\$	-	
9	Suburban	Acre	\$	208,418				\$	-			\$	-	
10	Undeveloped	Acre	\$	3,642				\$	-			\$	-	
	Environmental Mitigation = 3% Line Costs							\$	209,305			\$	4,058,498	
System Elements														
1	Signaling (ATC)	Mile	\$	2,070,000			0.76	\$	1,568,182			0.76	\$	1,568,182
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.76	\$	409,091			0.76	\$	409,091
3	Wayside Protection System	Mile	\$	108,000			0.76	\$	81,818			0.76	\$	81,818
Electrification Items														
1	Traction Power supply	Mile	\$	1,170,000			0.76	\$	886,364			0.76	\$	886,364
2	Traction Power Distribution	Mile	\$	1,485,000			0.76	\$	1,125,000			0.76	\$	1,125,000
								\$	11,256,580			\$	143,412,222	
	Program Implementation Costs (per screening)							\$	2,870,428			\$	36,570,117	
	Program Implementation Costs													
	Contingencies (per screening) (25%)							\$	2,814,145			\$	35,853,055	
	Subtotal							\$	16,941,153			\$	215,835,394	
	Subtotal (Rounded)							\$	17,000,000			\$	216,000,000	

COST ELEMENTS				UNIT	UNIT PRICE	At-Grade			Tunnel (2 tracks - Mined)			
Subsection 1				Base: 2009 (3rd Quarter)	C			C				
					Start: 255 + 00	End: 267 + 00	0.23 Miles	Start: 255 + 00	End: 267 + 00	0.23 Miles		
Subsection Details							Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 255 + 00	End: 267 + 00	0.23 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 255 + 00	End: 267 + 00	0.23 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total												
1 Double Track Section - At Grade					Mile	\$ 2,100,224	0.23	\$ 477,324			0.00	\$ -
2 Double Track Section - On Structure					Mile	\$ 4,700,160	0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway					Mile	\$ 4,700,160	0.00	\$ -			0.23	\$ 1,068,218
4 Double Track Section - In Trench					Mile	\$ 4,700,160	0.00	\$ -			0.00	\$ -
Four Track Section - Total												
Four-track Section - At Grade					Mile	\$ 4,200,448	0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure					Mile	\$ 9,400,320	0	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway					Mile	\$ 9,400,320	0	\$ -			0.00	\$ -
Four-Track Section - In Trench					Mile	\$ 9,400,320	0.00	\$ -			0.00	\$ -
Single Track - Total												
5 Single Track Section - At Grade					Mile	\$ 1,549,312	0	\$ -			0.00	\$ -
6 Single Track Section - On structure					Mile	\$ 2,350,080	0	\$ -			0.00	\$ -
7 Single Track Section - In Tunnel or Subway					Mile	\$ 2,350,080	0	\$ -			0.00	\$ -
8 Single Track Section - In Trench					Mile	\$ 2,350,080	0	\$ -			0.00	\$ -
9 Freight Double Track - At Grade					Mile	\$ 2,839,552	0	\$ -			0.00	\$ -
10 Freight Single Track - At Grade					Mile	\$ 1,549,312	0	\$ -			0.00	\$ -
Earthwork Items												
1 Site Preparation - Undeveloped					Acre	\$ 9,216	3.03	\$ 27,927			3.03	\$ 27,927
2 Total Cut					CY	\$ 6	0.00	\$ -			84333.00	\$ 544,049
3 Total Fill					CY	\$ 6	33733.00	\$ 212,178			33733.00	\$ 212,178
4 Borrow					CY	\$ 13	33733.00	\$ 424,356			0.00	\$ -
5 Spoil					CY	\$ 13	0.00	\$ -			50600.00	\$ 636,540
6 Landscape erosion Control					Acre	\$ 6,144	0.09	\$ 553			1.05	\$ 6,451
7 Security Fencing (Both sides of ROW)					Mile	\$ 144,384	0.23	\$ 32,815			0.00	\$ -
8 Special Drainage Facilities					5% Earthwork			\$ 34,891				\$ 71,357
Structures, Tunnels, Walls												
1 Standard Structure (2 tracks)					Mile	\$ 34,972,672	0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)					Mile	\$ 52,459,008	0.00	\$ -			0.00	\$ -
2 High Structure					Mile	\$ 40,424,448		\$ -				\$ -
3 Long Span Structure					Mile	\$ 61,919,232		\$ -				\$ -
4 Waterway Crossing - Primary					Mile	\$ 85,342,208		\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)					Mile	\$ 92,049,408	0.00	\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)					Mile	\$ 142,731,264		\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)					Mile	\$ 106,637,312		\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)					Mile	\$ 176,720,896		\$ -				\$ -
9 Double Track Drill & Blast					Mile	\$ 146,887,680	0.00	\$ -			0.23	\$ 33,383,564
10 Double Track Mined (Soft Soil)					Mile	\$ 79,200,000		\$ -				\$ -
Double Track TBM (<6 Miles)					Mile	\$ 106,637,312		\$ -				\$ -
Double Track TBM w/3rd Tube (>6 Miles)					Mile	\$ 176,720,896		\$ -				\$ -
11 Seismic Chamber (Drill & Blast/Mined)					ea	\$ 126,205,952		\$ -				\$ -
12 Crossovers					ea	\$ 442,368		\$ -				\$ -
13 Cut & Cover Double Track Tunnel					Mile	\$ 131,246,080	0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (1000 + ft)					Mile	\$ 57,524,224	0.00	\$ -				\$ -
Trench Long (4 tracks) (1000 + ft)					Mile	\$ 86,286,336						\$ -
15 Trench Short (2 tracks) (<1000 ft)					Mile	\$ 78,843,904		\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)					Mile	\$ 118,265,856						\$ -
16 Mechanical & Electrical for Tunnels					Mile	\$ 11,848,704		\$ -			0.23	\$ 2,692,887
17 Retaining Walls					Mile	\$ 8,613,888	0.00	\$ -				\$ -
18 Containment Walls					Mile	\$ 5,907,456		\$ -				\$ -
19 Single Track Cut and Cover Subway					Mile	\$ 131,246,080		\$ -				\$ -
Four Track Drill & Blast					Mile	\$ 293,775,360		\$ -				\$ -
Four Track Mined (Soft Soil)					Mile	\$ 158,400,000		\$ -				\$ -
Four Track TBM (<6 Miles)					Mile	\$ 213,274,624		\$ -				\$ -
Four Track TBM w/3rd Tube (>6 Miles)					Mile	\$ 353,441,792		\$ -				\$ -
Four Track Cut & Cover Tunnel					Mile	\$ 262,492,160	0.00	\$ -				\$ -
Grade Separations												
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)					ea	\$ 13,284,352		\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)					ea	\$ 19,926,528		\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)					ea	\$ 2,759,680		\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)					ea	\$ 2,029,568		\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)					ea	\$ 3,563,520	0	\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)					ea	\$ 3,593,216		\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)					ea	\$ 2,850,816	0	\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)					ea	\$ 3,171,328		\$ -				\$ -
7 Street Bridging HSR Trench					ea	\$ 1,398,784		\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade			Tunnel (2 tracks - Mined)					
Subsection 1				Base: 2009 (3rd Quarter)	C			C					
					Start: 255 + 00	End: 267 + 00	0.23 Miles	Start: 255 + 00	End: 267 + 00	0.23 Miles			
Subsection Details							Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)					Start: 255 + 00	End: 267 + 00	0.23 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 255 + 00	End: 267 + 00	0.23 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
8	Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-
Building Items													
1	Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-
2	Terminal Passenger Stations	Each	\$	-				\$	-			\$	-
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-
3	Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-
4	Parking - Structures	space	\$	-				\$	-			\$	-
5	Parking - At Grade	space	\$	-				\$	-			\$	-
Rail & Utility Relocation													
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-
3	Single Track Removal	Mile	\$	130,048				\$	-			\$	-
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-
ROW (NOT INCLUDED)													
ROW required for each segment													
1	Dense Urban	Acre	\$	2,786,321				\$	-			\$	-
2	Urban	Acre	\$	1,371,510				\$	-			\$	-
3	Dense Suburban	Acre	\$	908,134				\$	-			\$	-
4	Suburban	Acre	\$	208,418				\$	-			\$	-
5	Undeveloped	Acre	\$	3,642				\$	-			\$	-
ROW required for Temp. Construction Easement													
1	Dense Urban	Acre						\$	-			\$	-
2	Urban	Acre						\$	-			\$	-
3	Dense Suburban	Acre						\$	-			\$	-
4	Suburban	Acre						\$	-			\$	-
5	Undeveloped	Acre						\$	-			\$	-
Right-of-Way Required for Stations, Maintenance & Parking Facilities													
6	Dense Urban	Acre	\$	2,786,321				\$	-			\$	-
7	Urban	Acre	\$	1,371,510				\$	-			\$	-
8	Dense Suburban	Acre	\$	908,134				\$	-			\$	-
9	Suburban	Acre	\$	208,418				\$	-			\$	-
10	Undeveloped	Acre	\$	3,642				\$	-			\$	-
	Environmental Mitigation = 3% Line Costs							\$	36,301			\$	1,159,295
System Elements													
1	Signaling (ATC)	Mile	\$	2,070,000			0.23	\$	470,455		0.23	\$	470,455
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.23	\$	122,727		0.23	\$	122,727
3	Wayside Protection System	Mile	\$	108,000			0.23	\$	24,545		0.23	\$	24,545
Electrification Items													
1	Traction Power supply	Mile	\$	1,170,000			0.23	\$	265,909		0.23	\$	265,909
2	Traction Power Distribution	Mile	\$	1,485,000			0.23	\$	337,500		0.23	\$	337,500
								\$	2,467,481			\$	41,023,603
	Program Implementation Costs (per screening)							\$	629,208			\$	10,461,019
	Program Implementation Costs												
	Contingencies (per screening) (25%)							\$	616,870			\$	10,255,901
	Subtotal							\$	3,713,559			\$	61,740,523
	Subtotal (Rounded)							\$	4,000,000			\$	62,000,000

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)				
Subsection 1			Base: 2009 (3rd Quarter)	D				D				D					
				Start: 267 + 00	End: 315 + 00	0.91 Miles		Start: 267 + 00	End: 315 + 00	0.91 Miles		Start: 267 + 00	End: 315 + 00	0.91 Miles			
Subsection Details					Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)					Start: 267 + 00	End: 315 + 00	0.91 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 267 + 00	End: 315 + 00	0.91 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 267 + 00	End: 315 + 00	0.91 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Section - Total																	
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.91	\$	1,909,295			0.00	\$	-		0.00	\$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.91	\$	4,272,873
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
Four Track Section - Total																	
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$	-			0.00	\$	-		0.00	\$	-
Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$	-			0.91	\$	8,545,745		0	\$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$	-			0	\$	-		0	\$	-
Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$	-			0	\$	-		0	\$	-
Single Track - Total																	
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-		0	\$	-
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-			0	\$	-		0	\$	-
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-		0	\$	-
Earthwork Items																	
1 Site Preparation - Undeveloped	Acre	\$	9,216			12.12	\$	111,709			12.12	\$	111,709		0.00	\$	-
2 Total Cut	CY	\$	6			0.00	\$	-			0.00	\$	-		916667.00	\$	5,913,602
3 Total Fill	CY	\$	6			0.00	\$	-			0.00	\$	-		366667.00	\$	2,306,306
4 Borrow	CY	\$	13			0.00	\$	-			0.00	\$	-		0.00	\$	-
5 Spoil	CY	\$	13			0.00	\$	-			0.00	\$	-		550000.00	\$	6,918,912
6 Landscape erosion Control	Acre	\$	6,144			0.85	\$	5,222			0.85	\$	5,222		0.00	\$	-
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$	-			0.00	\$	-		0.85	\$	122,726
8 Special Drainage Facilities	5% Earthwork						\$	5,847				\$	5,847			\$	763,077
Structures, Tunnels, Walls																	
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$	-				\$	-		0.00	\$	-
Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00	\$	-			0.91	\$	47,690,007		0.00	\$	-
2 High Structure	Mile	\$	40,424,448				\$	-				\$	-			\$	-
3 Long Span Structure	Mile	\$	61,919,232				\$	-				\$	-			\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-				\$	-			\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-				\$	-			\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-				\$	-			\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-			\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-				\$	-			\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$	-			0.00	\$	-		0.91	\$	133,534,255
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$	-				\$	-		0.00	\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312												0.00	\$	-
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896														
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-				\$	-			\$	-
12 Crossovers	ea	\$	442,368				\$	-				\$	-			\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-			0.00	\$	-			\$	-
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0.00	\$	-			0.00	\$	-			\$	-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336														
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-				\$	-			\$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856														
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$	-				\$	-		0.91	\$	10,771,549
17 Retaining Walls	Mile	\$	8,613,888			0.00	\$	-			0.00	\$	-			\$	-
18 Containment Walls	Mile	\$	5,907,456				\$	-				\$	-			\$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-				\$	-			\$	-
Four Track Drill & Blast	Mile	\$	293,775,360				\$	-				\$	-			\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$	-				\$	-			\$	-
Four Track TBM (<6 Miles)	Mile	\$	213,274,624													\$	-
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792													\$	-
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
Grade Separations																	
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-				\$	-			\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-				\$	-			\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$	-				\$	-			\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-				\$	-			\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$	-			0	\$	-			\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-				\$	-			\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-				\$	-			\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-				\$	-			\$	-

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)								
Subsection 1			Base: 2009 (3rd Quarter)	D				D				D									
				Start: 267 + 00		End: 315 + 00		0.91 Miles		Start: 267 + 00		End: 315 + 00		0.91 Miles		Start: 267 + 00		End: 315 + 00		0.91 Miles	
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 267 + 00	End: 315 + 00	0.91 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles							
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 267 + 00	End: 315 + 00	0.91 Miles							
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles							
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 267 + 00	End: 315 + 00	0.91 Miles		Start: 0 + 00		0.00 Miles							
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-			\$	-			0	\$	-				
8 Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-			0	\$	-				
Building Items																					
1 Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-				\$	-				
2 Terminal Passenger Stations	Each	\$	-				\$	-			\$	-				\$	-				
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-				\$	-				
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-				\$	-				
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-				\$	-				
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-				\$	-				
3 Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-				\$	-				
4 Parking - Structures	space	\$	-				\$	-			\$	-				\$	-				
5 Parking - At Grade	space	\$	-				\$	-			\$	-				\$	-				
Rail & Utility Relocation																					
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-				\$	-				
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-				\$	-				
3 Single Track Removal	Mile	\$	130,048				\$	-			\$	-				\$	-				
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-				\$	-				
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-				\$	-				
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-				\$	-				
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-				\$	-				
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-				\$	-				
ROW (NOT INCLUDED)																					
ROW required for each segment																					
1 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-				\$	-				
2 Urban	Acre	\$	1,371,510				\$	-			\$	-				\$	-				
3 Dense Suburban	Acre	\$	908,134				\$	-			\$	-				\$	-				
4 Suburban	Acre	\$	208,418				\$	-			\$	-				\$	-				
5 Undeveloped	Acre	\$	3,642				\$	-			\$	-				\$	-				
ROW required for Temp. Construction Easement																					
1 Dense Urban	Acre						\$	-			\$	-				\$	-				
2 Urban	Acre						\$	-			\$	-				\$	-				
3 Dense Suburban	Acre						\$	-			\$	-				\$	-				
4 Suburban	Acre						\$	-			\$	-				\$	-				
5 Undeveloped	Acre						\$	-			\$	-				\$	-				
Right-of-Way Required for Stations, Maintenance & Parking Facilities																					
6 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-				\$	-				
7 Urban	Acre	\$	1,371,510				\$	-			\$	-				\$	-				
8 Dense Suburban	Acre	\$	908,134				\$	-			\$	-				\$	-				
9 Suburban	Acre	\$	208,418				\$	-			\$	-				\$	-				
10 Undeveloped	Acre	\$	3,642				\$	-			\$	-				\$	-				
Environmental Mitigation = 3% Line Costs							\$	60,962			\$	1,690,756				\$	4,938,099				
System Elements																					
1 Signaling (ATC)	Mile	\$	2,070,000			0.91	\$	1,881,818			0.91	\$	1,881,818			0.91	\$	1,881,818			
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.91	\$	490,909			0.91	\$	490,909			0.91	\$	490,909			
3 Wayside Protection System	Mile	\$	108,000			0.91	\$	98,182			0.91	\$	98,182			0.91	\$	98,182			
Electrification Items																					
1 Traction Power supply	Mile	\$	1,170,000			0.91	\$	1,063,636			0.91	\$	1,063,636			0.91	\$	1,063,636			
2 Traction Power Distribution	Mile	\$	1,485,000			0.91	\$	1,350,000			0.91	\$	1,350,000			0.91	\$	1,350,000			
Program Implementation Costs (per screening)							\$	6,977,580			\$	62,933,832			\$	174,425,945					
Program Implementation Costs							\$	1,779,283			\$	16,048,127			\$	44,478,616					
Contingencies (per screening) (25%)							\$	1,744,395			\$	15,733,458			\$	43,606,486					
Subtotal							\$	10,501,258				\$	94,715,417				\$	262,511,047			
Subtotal (Rounded)							\$	11,000,000				\$	95,000,000				\$	263,000,000			

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)					
Subsection 1			Base: 2009 (3rd Quarter)	E				E				E						
				Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	Start: 350 + 00	0.66 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)				Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles				
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Double Track Section - Total	Mile	\$	2,100,224			0.66	\$	1,392,194			0.66	\$	1,392,194			0.00	\$	-
Double Track Section - At Grade	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-			0.00	\$	-
Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-			0.66	\$	3,115,636			0.66	\$	3,115,636
Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-			0.00	\$	-
Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-			0.00	\$	-
Four Track Section - Total																		
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$	-			0.00	\$	-			0.00	\$	-
Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$	-			0	\$	-			0	\$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$	-			0	\$	-			0	\$	-
Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$	-			0	\$	-			0	\$	-
Single Track - Total																		
Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-			0	\$	-
Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-			0	\$	-			0	\$	-
Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-			0	\$	-			0	\$	-
Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-			0	\$	-			0	\$	-
Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-			0	\$	-			0	\$	-
Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-			0	\$	-
Earthwork Items																		
Site Preparation - Undeveloped	Acre	\$	9,216			8.84	\$	81,469			8.84	\$	81,469			8.84	\$	81,469
Total Cut	CY	\$	6			0.00	\$	-			0.00	\$	-			231815.00	\$	1,495,485
Total Fill	CY	\$	6			0.00	\$	-			0.00	\$	-			92726.00	\$	583,239
Borrow	CY	\$	13			0.00	\$	-			0.00	\$	-			0.00	\$	-
Spoil	CY	\$	13			0.00	\$	-			0.00	\$	-			139089.00	\$	1,749,717
Landscape erosion Control	Acre	\$	6,144			0.66	\$	4,055			0.66	\$	4,055			2.87	\$	17,633
Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$	-			0.00	\$	-			0.22	\$	31,764
Special Drainage Facilities	5% Earthwork					\$		4,276			\$		4,276			\$		197,965
Structures, Tunnels, Walls																		
Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$	-			0.00	\$	-			0.00	\$	-
Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00	\$	-			0.00	\$	-			0.00	\$	-
High Structure	Mile	\$	40,424,448			\$		-			\$		-			\$		-
Long Span Structure	Mile	\$	61,919,232			\$		-			\$		-			\$		-
Waterway Crossing - Primary	Mile	\$	85,342,208			\$		-			\$		-			\$		-
Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			\$		-			\$		-			\$		-
Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264			\$		-			\$		-			\$		-
Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312			\$		-			\$		-			\$		-
Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896			\$		-			\$		-			\$		-
Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$	-			0.66	\$	97,368,727			0.66	\$	97,368,727
Double Track Mined (Soft Soil)	Mile	\$	79,200,000			\$		-			\$		-			\$		-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312															
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896															
Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952			\$		-			\$		-			\$		-
Crossovers	ea	\$	442,368			\$		-			\$		-			\$		-
Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-			0.00	\$	-			0.00	\$	-
Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0.00	\$	-			0.00	\$	-			\$		-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336															
Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904			\$		-			\$		-			\$		-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856															
Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			\$		-			\$		-			0.66	\$	7,854,255
Retaining Walls	Mile	\$	8,613,888			0.00	\$	-			0.00	\$	-			\$		-
Containment Walls	Mile	\$	5,907,456			\$		-			\$		-			\$		-
Single Track Cut and Cover Subway	Mile	\$	131,246,080			\$		-			\$		-			\$		-
Four Track Drill & Blast	Mile	\$	293,775,360			\$		-			\$		-			\$		-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000			\$		-			\$		-					
Four Track TBM (<6 Miles)	Mile	\$	213,274,624													0.00	\$	-
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792													\$		-
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-			0.00	\$	-			\$		-
Grade Separations																		
Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352			\$		-			\$		-			\$		-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528			\$		-			\$		-			\$		-
Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			\$		-			\$		-			\$		-
Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568			\$		-			\$		-			\$		-
Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$	-			0	\$	-			\$		-
Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216			\$		-			\$		-			\$		-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816			\$		-			\$		-			\$		-
Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328			\$		-			\$		-			\$		-



COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)			
Subsection 1			Base: 2009 (3rd Quarter)	E				E				E				
				Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	Start: 350 + 00	0.66 Miles		
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)				Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		Start: 315 + 00	End: 350 + 00	0.66 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$ -				\$ -			0	\$ -	
8 Minor Crossing Closures	ea	\$	87,040				\$ -				\$ -			0	\$ -	
Building Items																
1 Intermediate Passenger Stations	Each	\$	-				\$ -				\$ -				\$ -	
2 Terminal Passenger Stations	Each	\$	-				\$ -				\$ -				\$ -	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$ -				\$ -				\$ -	
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$ -				\$ -				\$ -	
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$ -				\$ -				\$ -	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$ -				\$ -				\$ -	
3 Maintenance Facility	Each	\$	123,921,884				\$ -				\$ -				\$ -	
4 Parking - Structures	space	\$	-				\$ -				\$ -				\$ -	
5 Parking - At Grade	space	\$	-				\$ -				\$ -				\$ -	
Rail & Utility Relocation																
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$ -				\$ -				\$ -	
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$ -				\$ -				\$ -	
3 Single Track Removal	Mile	\$	130,048				\$ -				\$ -				\$ -	
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$ -				\$ -				\$ -	
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$ -				\$ -				\$ -	
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$ -				\$ -				\$ -	
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$ -				\$ -				\$ -	
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$ -				\$ -				\$ -	
ROW (NOT INCLUDED)																
ROW required for each segment																
1 Dense Urban	Acre	\$	2,786,321				\$ -				\$ -				\$ -	
2 Urban	Acre	\$	1,371,510				\$ -				\$ -				\$ -	
3 Dense Suburban	Acre	\$	908,134				\$ -				\$ -				\$ -	
4 Suburban	Acre	\$	208,418				\$ -				\$ -				\$ -	
5 Undeveloped	Acre	\$	3,642				\$ -				\$ -				\$ -	
ROW required for Temp. Construction Easement																
1 Dense Urban	Acre						\$ -				\$ -				\$ -	
2 Urban	Acre						\$ -				\$ -				\$ -	
3 Dense Suburban	Acre						\$ -				\$ -				\$ -	
4 Suburban	Acre						\$ -				\$ -				\$ -	
5 Undeveloped	Acre						\$ -				\$ -				\$ -	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																
6 Dense Urban	Acre	\$	2,786,321				\$ -				\$ -				\$ -	
7 Urban	Acre	\$	1,371,510				\$ -				\$ -				\$ -	
8 Dense Suburban	Acre	\$	908,134				\$ -				\$ -				\$ -	
9 Suburban	Acre	\$	208,418				\$ -				\$ -				\$ -	
10 Undeveloped	Acre	\$	3,642				\$ -				\$ -				\$ -	
Environmental Mitigation = 3% Line Costs							\$ 44,460				\$ 3,058,991				\$ 3,374,877	
System Elements																
1 Signaling (ATC)	Mile	\$	2,070,000			0.66	\$ 1,372,159			0.66	\$ 1,372,159			0.66	\$ 1,372,159	
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.66	\$ 357,955			0.66	\$ 357,955			0.66	\$ 357,955	
3 Wayside Protection System	Mile	\$	108,000			0.66	\$ 71,591			0.66	\$ 71,591			0.66	\$ 71,591	
Electrification Items																
1 Traction Power supply	Mile	\$	1,170,000			0.66	\$ 775,568			0.66	\$ 775,568			0.66	\$ 775,568	
2 Traction Power Distribution	Mile	\$	1,485,000			0.66	\$ 984,375			0.66	\$ 984,375			0.66	\$ 984,375	
Subtotal							\$ 5,088,102				\$ 108,586,997				\$ 119,432,417	
Program Implementation Costs (per screening)							\$ 1,297,466				\$ 27,689,684				\$ 30,455,266	
Program Implementation Costs																
Contingencies (per screening) (25%)							\$ 1,272,026				\$ 27,146,749				\$ 29,858,104	
Subtotal							\$ 7,657,594				\$ 163,423,430				\$ 179,745,787	
Subtotal (Rounded)							\$ 8,000,000				\$ 163,000,000				\$ 180,000,000	

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)				
Subsection 1			Base: 2009 (3rd Quarter)	F				F				F					
				Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 350 + 00	Start: 376 + 00	0.49 Miles			
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 350 + 00	End: 376 + 00	0.49 Miles			
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Section - Total																	
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.49	\$	1,034,201			0.00	\$	-		0.00	\$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.49	\$	2,314,473
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
Four Track Section - Total																	
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$	-			0.49	\$	2,068,402		0.00	\$	-
Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$	-			0	\$	-		0	\$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$	-			0	\$	-		0	\$	-
Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$	-			0	\$	-		0	\$	-
Single Track - Total																	
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-		0	\$	-
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
Freight Double Track - At Grade																	
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-			0	\$	-		0	\$	-
Freight Single Track - At Grade																	
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-		0	\$	-
Earthwork Items																	
1 Site Preparation - Undeveloped	Acre	\$	9,216			6.57	\$	60,549			6.57	\$	60,549		6.57	\$	60,549
2 Total Cut	CY	\$	6			0.00	\$	-			0.00	\$	-		529629.00	\$	3,416,743
3 Total Fill	CY	\$	6			0.00	\$	-			0.00	\$	-		211851.00	\$	1,332,526
4 Borrow	CY	\$	13			0.00	\$	-			0.00	\$	-		0.00	\$	-
5 Spoil	CY	\$	13			0.00	\$	-			0.00	\$	-		317778.00	\$	3,997,596
6 Landscape erosion Control	Acre	\$	6,144			0.49	\$	3,011			0.49	\$	3,011		6.57	\$	40,366
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$	-			0.49	\$	71,098		0.49	\$	70,748
8 Special Drainage Facilities	5% Earthwork						\$	3,178				\$	6,733			\$	445,926
Structures, Tunnels, Walls																	
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$	-			0.00	\$	-		0.00	\$	-
Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00	\$	-			0.00	\$	-		0.00	\$	-
2 High Structure	Mile	\$	40,424,448				\$	-				\$	-			\$	-
3 Long Span Structure	Mile	\$	61,919,232				\$	-				\$	-			\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-				\$	-			\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-				\$	-			\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-				\$	-			\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-			\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-				\$	-			\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$	-			0.00	\$	-		0.49	\$	72,331,055
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$	-				\$	-			\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312														
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896														
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-				\$	-			\$	-
12 Crossovers	ea	\$	442,368				\$	-				\$	-			\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-			0.00	\$	-		0.00	\$	-
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0.00	\$	-			0.00	\$	-			\$	-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336														
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-				\$	-			\$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856														
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$	-				\$	-		0.49	\$	5,834,589
17 Retaining Walls	Mile	\$	8,613,888			0.00	\$	-			0.00	\$	-			\$	-
18 Containment Walls	Mile	\$	5,907,456				\$	-				\$	-			\$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-				\$	-			\$	-
Four Track Drill & Blast	Mile	\$	293,775,360				\$	-				\$	-			\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$	-				\$	-			\$	-
Four Track TBM (<6 Miles)	Mile	\$	213,274,624												0.00	\$	-
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792													\$	-
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-			0.00	\$	-			\$	-
Grade Separations																	
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-				\$	-			\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-				\$	-			\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$	-				\$	-			\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-				\$	-			\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$	-			0	\$	-			\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-				\$	-			\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-				\$	-			\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-				\$	-			\$	-

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)					
Subsection 1			Base: 2009 (3rd Quarter)	F				F				F						
				Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 350 + 00	Start: 376 + 00	0.49 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)				Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 350 + 00	End: 376 + 00	0.49 Miles				
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 350 + 00	End: 376 + 00	0.49 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-			\$	-	0	\$	-			
8 Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-	0	\$	-			
Building Items																		
1 Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-		\$	-			
2 Terminal Passenger Stations	Each	\$	-				\$	-			\$	-		\$	-			
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-		\$	-			
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-		\$	-			
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-		\$	-			
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-		\$	-			
3 Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-		\$	-			
4 Parking - Structures	space	\$	-				\$	-			\$	-		\$	-			
5 Parking - At Grade	space	\$	-				\$	-			\$	-		\$	-			
Rail & Utility Relocation																		
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896			0.49	\$	980,439			0.49	\$	980,439		\$	-		
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896												\$	-		
3 Single Track Removal	Mile	\$	130,048			0.49	\$	63,724			0.49	\$	63,724		\$	-		
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			0.49	\$	758,661			0.49	\$	758,661		\$	-		
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-		\$	-		
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-		\$	-		
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-		\$	-		
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-		\$	-		
ROW (NOT INCLUDED)																		
ROW required for each segment																		
1 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-		
2 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-		
3 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-		
4 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-		
5 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-		
ROW required for Temp. Construction Easement																		
1 Dense Urban	Acre						\$	-			\$	-			\$	-		
2 Urban	Acre						\$	-			\$	-			\$	-		
3 Dense Suburban	Acre						\$	-			\$	-			\$	-		
4 Suburban	Acre						\$	-			\$	-			\$	-		
5 Undeveloped	Acre						\$	-			\$	-			\$	-		
Right-of-Way Required for Stations, Maintenance & Parking Facilities																		
6 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-		
7 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-		
8 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-		
9 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-		
10 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-		
Environmental Mitigation = 3% Line Costs							\$	87,113			\$	120,379			\$	2,695,337		
System Elements																		
1 Signaling (ATC)	Mile	\$	2,070,000			0.49	\$	1,019,318			0.49	\$	1,019,318	0.49	\$	1,019,318		
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.49	\$	265,909			0.49	\$	265,909	0.49	\$	265,909		
3 Wayside Protection System	Mile	\$	108,000			0.49	\$	53,182			0.49	\$	53,182	0.49	\$	53,182		
Electrification Items																		
1 Traction Power supply	Mile	\$	1,170,000			0.49	\$	576,136			0.49	\$	576,136	0.49	\$	576,136		
2 Traction Power Distribution	Mile	\$	1,485,000			0.49	\$	731,250			0.49	\$	731,250	0.49	\$	731,250		
Program Implementation Costs (per screening)							\$	5,636,671			\$	6,778,791			\$	95,185,704		
Program Implementation Costs							\$	1,437,351			\$	1,728,592			\$	24,272,354		
Contingencies (per screening) (25%)							\$	1,409,168			\$	1,694,698			\$	23,796,426		
Subtotal							\$	8,483,190				\$	10,202,080				\$	143,254,484
Subtotal (Rounded)							\$	8,000,000				\$	10,000,000				\$	143,000,000

COST ELEMENTS				UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)									
Subsection 1					Base: 2009 (3rd Quarter)	G				G				G									
						Start: 376 + 00		End: 450 + 00		1.40 Miles		Start: 376 + 00		End: 450 + 00		1.40 Miles		Start: 376 + 00		Start: 450 + 00		1.40 Miles	
Subsection Details								Quant.	Cost			Quant.	Cost			Quant.	Cost						
Double Track At-Grade (Mile)						Start: 376 + 00	End: 450 + 00	1.40 Miles		Start: 376 + 00	End: 450 + 00	1.40 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles							
Double Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
Double Track Tunnel (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 376 + 00	End: 450 + 00	1.40 Miles							
Double Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
Four Track Construction/Reconstruction At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles							
Four Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles							
Four Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles							
Four Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles							
Double Track Section - Total								1.40	\$ 2,943,496			0.66	\$ 1,389,330			0.00	\$ -						
1 Double Track Section - At Grade				Mile	\$	2,100,224						0.00	\$ -			0.00	\$ -						
2 Double Track Section - On Structure				Mile	\$	4,700,160						0.00	\$ -			0.00	\$ -						
3 Double Track Section - In Tunnel or Subway				Mile	\$	4,700,160						0.74	\$ 3,478,118			1.40	\$ 6,587,345						
4 Double Track Section - In Trench				Mile	\$	4,700,160						0.00	\$ -			0.00	\$ -						
Four Track Section - Total																							
Four-track Section - At Grade				Mile	\$	4,200,448			0.00	\$ -		0.00	\$ -			0.00	\$ -						
Four-Track Section - On Structure				Mile	\$	9,400,320			0	\$ -		0	\$ -			0	\$ -						
Four-Track Section - In Tunnel or Subway				Mile	\$	9,400,320			0	\$ -		0	\$ -			0	\$ -						
Four-Track Section - In Trench				Mile	\$	9,400,320			0	\$ -		0	\$ -			0	\$ -						
Single Track - Total																							
5 Single Track Section - At Grade				Mile	\$	1,549,312			0	\$ -		0	\$ -			0	\$ -						
6 Single Track Section - On structure				Mile	\$	2,350,080			0	\$ -		0	\$ -			0	\$ -						
7 Single Track Section - In Tunnel or Subway				Mile	\$	2,350,080			0	\$ -		0	\$ -			0	\$ -						
8 Single Track Section - In Trench				Mile	\$	2,350,080			0	\$ -		0	\$ -			0	\$ -						
9 Freight Double Track - At Grade				Mile	\$	2,839,552			0	\$ -		0	\$ -			0	\$ -						
10 Freight Single Track - At Grade				Mile	\$	1,549,312			0	\$ -		0	\$ -			0	\$ -						
Earthwork Items																							
1 Site Preparation - Undeveloped				Acre	\$	9,216			18.69	\$ 172,218		18.69	\$ 172,218			18.69	\$ 172,218						
2 Total Cut				CY	\$	6			0.00	\$ -		0.00	\$ -			72314.81	\$ 466,517						
3 Total Fill				CY	\$	6			0.00	\$ -		0.00	\$ -			28925.93	\$ 181,942						
4 Borrow				CY	\$	13			0.00	\$ -		0.00	\$ -			0.00	\$ -						
5 Spoil				CY	\$	13			0.00	\$ -		0.00	\$ -			43388.89	\$ 545,825						
6 Landscape erosion Control				Acre	\$	6,144			0.74	\$ 4,547		0.74	\$ 4,547			0.90	\$ 5,508						
7 Security Fencing (Both sides of ROW)				Mile	\$	144,384			0.00	\$ -		0.00	\$ -			0.07	\$ 9,708						
8 Special Drainage Facilities				5% Earthwork					\$ 8,838		\$ 8,838					\$ 69,086							
Structures, Tunnels, Walls																							
1 Standard Structure (2 tracks)				Mile	\$	34,972,672			0.00	\$ -		0.00	\$ -			0.00	\$ -						
Standard Structure (4 tracks)				Mile	\$	52,459,008			0.00	\$ -		0.00	\$ -			0.00	\$ -						
2 High Structure				Mile	\$	40,424,448				\$ -			\$ -				\$ -						
3 Long Span Structure				Mile	\$	61,919,232				\$ -			\$ -				\$ -						
4 Waterway Crossing - Primary				Mile	\$	85,342,208				\$ -			\$ -				\$ -						
5 Waterway Crossing - Secondary (Irrigation Canal)				Mile	\$	92,049,408				\$ -			\$ -				\$ -						
6 Twin Single Track Drill&Blast (<6 Miles)				Mile	\$	142,731,264				\$ -			\$ -				\$ -						
7 Twin Single Track TBM (<6 Miles)				Mile	\$	106,637,312				\$ -			\$ -				\$ -						
8 Twin Single Track TBM w/3rd Tube (<6 Miles)				Mile	\$	176,720,896				\$ -			\$ -				\$ -						
9 Double Track Drill & Blast				Mile	\$	146,887,680			0.00	\$ -		0.74	\$ 108,696,883			1.40	\$ 205,865,309						
10 Double Track Mined (Soft Soil)				Mile	\$	79,200,000				\$ -			\$ -				\$ -						
Double Track TBM (<6 Miles)				Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)				Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)				ea	\$	126,205,952				\$ -			\$ -				\$ -						
12 Crossovers				ea	\$	442,368				\$ -			\$ -				\$ -						
13 Cut & Cover Double Track Tunnel				Mile	\$	131,246,080			0.00	\$ -		0.00	\$ -			0.00	\$ -						
14 Trench Long (2 tracks) (1000 + ft)				Mile	\$	57,524,224			0.00	\$ -		0.00	\$ -				\$ -						
Trench Long (4 tracks) (1000 + ft)				Mile	\$	86,286,336																	
15 Trench Short (2 tracks) (<1000 ft)				Mile	\$	78,843,904				\$ -			\$ -				\$ -						
Trench Short (4 tracks) (<1000 ft)				Mile	\$	118,265,856																	
16 Mechanical & Electrical for Tunnels				Mile	\$	11,848,704				\$ -			\$ -			1.40	\$ 16,606,138						
17 Retaining Walls				Mile	\$	8,613,888			0.00	\$ -		0.00	\$ -				\$ -						
18 Containment Walls				Mile	\$	5,907,456				\$ -			\$ -				\$ -						
19 Single Track Cut and Cover Subway				Mile	\$	131,246,080				\$ -			\$ -				\$ -						
Four Track Drill & Blast				Mile	\$	293,775,360				\$ -			\$ -				\$ -						
Four Track Mined (Soft Soil)				Mile	\$	158,400,000				\$ -			\$ -				\$ -						
Four Track TBM (<6 Miles)				Mile	\$	213,274,624											\$ -						
Four Track TBM w/3rd Tube (>6 Miles)				Mile	\$	353,441,792											\$ -						
Four Track Cut & Cover Tunnel				Mile	\$	262,492,160			0.00	\$ -		0.00	\$ -				\$ -						
Grade Separations																							
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)				ea	\$	13,284,352				\$ -			\$ -				\$ -						
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)				ea	\$	19,926,528				\$ -			\$ -				\$ -						
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)				ea	\$	2,759,680				\$ -			\$ -				\$ -						
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)				ea	\$	2,029,568				\$ -			\$ -				\$ -						
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)				ea	\$	3,563,520			0	\$ -		0	\$ -				\$ -						
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)				ea	\$	3,593,216				\$ -			\$ -				\$ -						
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)				ea	\$	2,850,816				\$ -			\$ -				\$ -						
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)				ea	\$	3,171,328				\$ -			\$ -				\$ -						

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)			At-Grade (4 Tracks)				Tunnel (2 tracks - Mined)					
Subsection 1				Base: 2009 (3rd Quarter)	G			G				G					
					Start: 376 + 00	End: 450 + 00	1.40 Miles	Start: 376 + 00	End: 450 + 00	1.40 Miles	Start: 376 + 00	Start: 450 + 00	1.40 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 376 + 00	End: 450 + 00	1.40 Miles		Start: 376 + 00	End: 450 + 00	1.40 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 376 + 00	End: 450 + 00	1.40 Miles			
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-			\$	-		0	\$	-	
8 Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-		0	\$	-	
Building Items																	
1 Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-	
2 Terminal Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000			1	15,000,000			1	15,000,000				\$	-	
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-		1	\$	15,000,000	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-			\$	-	
3 Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-			\$	-	
4 Parking - Structures	space	\$	-				\$	-			\$	-			\$	-	
5 Parking - At Grade	space	\$	-				\$	-			\$	-			\$	-	
Rail & Utility Relocation																	
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896			0.70	\$	1,400,627			0.70	\$	1,400,627			\$	-
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896			0					0					\$	-
3 Single Track Removal	Mile	\$	130,048			0.70	\$	91,034			0.70	\$	91,034			\$	-
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			0.74	\$	1,145,733			0.74	\$	1,145,733			\$	-
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-			\$	-
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-			\$	-
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-			\$	-
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-			\$	-
ROW (NOT INCLUDED)																	
ROW required for each segment																	
1 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-	
2 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-	
3 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-	
4 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-	
5 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement																	
1 Dense Urban	Acre						\$	-			\$	-		0	\$	-	
2 Urban	Acre						\$	-			\$	-			\$	-	
3 Dense Suburban	Acre						\$	-			\$	-			\$	-	
4 Suburban	Acre						\$	-			\$	-			\$	-	
5 Undeveloped	Acre						\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																	
6 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-	
7 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-	
8 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-	
9 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-	
10 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs							\$	622,995			\$	3,941,620			\$	7,365,288	
System Elements																	
1 Signaling (ATC)	Mile	\$	2,070,000			1.40	\$	2,901,136			1.40	\$	2,901,136		1.40	\$	2,901,136
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.40	\$	756,818			1.40	\$	756,818		1.40	\$	756,818
3 Wayside Protection System	Mile	\$	108,000			1.40	\$	151,364			1.40	\$	151,364		1.40	\$	151,364
Electrification Items																	
1 Traction Power supply	Mile	\$	1,170,000			1.40	\$	1,639,773			1.40	\$	1,639,773		1.40	\$	1,639,773
2 Traction Power Distribution	Mile	\$	1,485,000			1.40	\$	2,081,250			1.40	\$	2,081,250		1.40	\$	2,081,250
Subtotal								28,919,828				142,859,289				260,405,226	
Program Implementation Costs (per screening)								7,374,556				36,429,119				66,403,333	
Program Implementation Costs																	
Contingencies (per screening) (25%)								7,229,957				35,714,822				65,101,306	
Subtotal								43,524,342				215,003,230				391,909,864	
Subtotal (Rounded)								44,000,000				215,000,000				392,000,000	

Subsection 2	2A (4.2 miles)	2B (1.0 miles)	2C1 (1.0 miles)	2C2 (1.3 miles)					2D (1.2 miles)		
	At Grade	Berm	Berm	Aerial Viaduct	Berm	At Grade	Open Trench (HST Only)	Covered Trench/Tunnel (HST Only)	At Grade	Open Trench (HST Only)	Covered Trench (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$74	\$66	\$51 (2 tracks)	<del>\$97</del> <u>132</u> (3 tracks); \$93 (2 tracks)	\$95 (3 tracks); \$57 (2 tracks)	\$28 (3 tracks); \$26 (2 tracks)	<del>\$133</del> <u>90</u> (1 track); <del>\$200</del> <u>129</u> (2 tracks)	\$295 (1 track); \$331 (2 tracks)	\$37 (3 tracks); \$14 (2 tracks)	<del>\$50</del> <u>24</u> (1 track) <del>\$181</del> <u>143</u> (2 tracks)	\$293 (1 track); \$342 (2 tracks)
Acquisition Cost of Permanent ROW	Highest	Medium	Medium	Medium	Medium	Highest	Medium	Lowest	Highest	Medium	Lowest
Notes:	1. Existing 4 tracks extends from the Caltrain Bayshore Station to just north of the US 101 overpass. 2. Caltrain South San Francisco Station	1. Linden Ave and Scott St converted to undercrossings.	1. Assume Caltrain 2 track grade separation project completed (includes San Bruno Ave, San Mateo Ave, and Angus Ave converted to undercrossings).	3 tracks (2 Caltrain-1 HST) - 1. Three tracks on existing Caltrain alignment for approach to Caltrain and HST Millbrae station. <i>Must be combined with 1 track open trench or tunnel option.</i> 2 tracks (2 Caltrain)- 1. Two tracks on existing Caltrain alignment for approach to Caltrain Millbrae station. <i>Must be combined with 2 track open trench or tunnel option.</i>	3 tracks (2 Caltrain-1 HST) - 1. Three tracks on existing Caltrain alignment for approach to Caltrain and HST Millbrae station. <i>Must be combined with 1 track open trench or tunnel option.</i> 2 tracks (2 Caltrain)- 1. Two tracks on existing Caltrain alignment for approach to Caltrain Millbrae station. <i>Must be combined with 2 track open trench or tunnel option.</i>	3 tracks (2 Caltrain-1 HST) - 1. Three tracks on existing Caltrain alignment for approach to Caltrain and HST Millbrae station. <i>Must be combined with 1 track open trench or tunnel option.</i> 2 tracks (2 Caltrain)- 1. Two tracks on existing Caltrain alignment for approach to Caltrain Millbrae station. 3. Center St and Santa Paula (Pedestrian) converted to an overcrossings. <i>Must be combined with 2 track open trench or tunnel option.</i>	1 track - 1. One track on new alignment for approach to HST Millbrae station. <i>Must be combined with 3 track aerial viaduct, berm, or at grade option.</i> 2 tracks - 1. Two tracks on new alignment for approach to HST Millbrae station. <i>Must be combined with 2 track aerial viaduct, berm, or at grade option.</i>	1 track - 1. One track on new alignment for approach to HST Millbrae station. <i>Must be combined with 3 track aerial viaduct, berm, or at grade option.</i> 2 tracks - 1. Two tracks on new alignment for approach to HST Millbrae station. <i>Must be combined with 2 track aerial viaduct, berm, or at grade option.</i>	3 tracks (2 Caltrain-1 HST) - 1. Three tracks on existing Caltrain alignment for Caltrain and HST Millbrae station. <i>Must be combined with 1 track open trench or tunnel option.</i> 2. Caltrain Millbrae Station. 3. HST Millbrae Station (1 platform) 2 tracks (2 Caltrain)- 1. Two tracks on existing Caltrain alignment for Caltrain Millbrae station. <i>Must be combined with 2 track open trench or tunnel option.</i>	1 track - 1. One track on new alignment for HST Millbrae station. <i>Must be combined with 3 track at grade option.</i> 2. HST Millbrae station (1 platform) 2 tracks - 1. Two tracks on new alignment for HST Millbrae station. <i>Must be combined with 2 track at grade option.</i> 2. HST Millbrae station (2 platforms)	1 track - 1. One track on new alignment for HST Millbrae station. <i>Must be combined with 3 track at grade option.</i> 2. HST Millbrae station (1 platform) 2 tracks - 1. Two tracks on new alignment for HST Millbrae station. <i>Must be combined with 2 track at grade option.</i> 2. HST Millbrae station (2 platforms)



COST ELEMENTS		UNIT	UNIT PRICE	At-Grade			
Subsection 2			Base: 2009 (3rd Quarter)	A			
				Start: 450 + 00	End: 671 + 00	4.19 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 450 + 00	End: 671 + 00	4.19 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
	Double Track Section - Total						
1	Double Track Section - At Grade	Mile	\$ 2,100,224			4.19	\$ 8,790,710
2	Double Track Section - On Structure	Mile	\$ 4,700,160			0.00	\$ -
3	Double Track Section - In Tunnel or Subway	Mile	\$ 4,700,160			0.00	\$ -
4	Double Track Section - In Trench	Mile	\$ 4,700,160			0.00	\$ -
	Four Track Section - Total						
	Four-track Section - At Grade	Mile	\$ 4,200,448			0.00	\$ -
	Four-Track Section - On Structure	Mile	\$ 9,400,320			0	\$ -
	Four-Track Section - In Tunnel or Subway	Mile	\$ 9,400,320			0	\$ -
	Four-Track Section - In Trench	Mile	\$ 9,400,320			0.00	\$ -
	Single Track - Total						
5	Single Track Section - At Grade	Mile	\$ 1,549,312			0	\$ -
6	Single Track Section - On structure	Mile	\$ 2,350,080			0	\$ -
7	Single Track Section - In Tunnel or Subway	Mile	\$ 2,350,080			0	\$ -
8	Single Track Section - In Trench	Mile	\$ 2,350,080			0	\$ -
9	Freight Double Track - At Grade	Mile	\$ 2,839,552			0	\$ -
10	Freight Single Track - At Grade	Mile	\$ 1,549,312			0	\$ -
	Earthwork Items						
1	Site Preparation - Undeveloped	Acre	\$ 9,216			32.98	\$ 303,921
2	Total Cut	CY	\$ 6.00			0.00	\$ -
3	Total Fill	CY	\$ 6.00			0.00	\$ -
4	Borrow	CY	\$ 13.00			0.00	\$ -
5	Spoil	CY	\$ 13.00			0.00	\$ -
6	Landscape erosion Control	Acre	\$ 6,144			0.00	\$ -
7	Security Fencing (Both sides of ROW)	Mile	\$ 144,384			0.00	\$ -
8	Special Drainage Facilities	5% Earthwork					\$ 15,196
	Structures, Tunnels, Walls						
1	Standard Structure (2 tracks)	Mile	\$ 34,972,672			0.00	\$ -
2	High Structure	Mile	\$ 40,424,448				\$ -
3	Long Span Structure	Mile	\$ 61,919,232				\$ -
4	Waterway Crossing - Primary	Mile	\$ 85,342,208				\$ -
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$ 92,049,408			0.02	\$ 1,743,360
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$ 142,731,264				\$ -
7	Twin Single Track TBM (<6 Miles)	Mile	\$ 106,637,312				\$ -
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$ 176,720,896				\$ -
9	Double Track Drill & Blast	Mile	\$ 146,887,680			0.00	\$ -
10	Double Track Mined (Soft Soil)	Mile	\$ 79,200,000				\$ -
	Double Track TBM (<6 Miles)	Mile	\$ 106,637,312				\$ -
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$ 176,720,896				\$ -
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$ 126,205,952				\$ -
12	Crossovers	ea	\$ 442,368				\$ -
13	Cut & Cover Double Track Tunnel	Mile	\$ 131,246,080			0.00	\$ -
14	Trench Long (2 tracks) (1000 + ft)	Mile	\$ 57,524,224			0.00	\$ -
	Trench Long (4 tracks) (1000 + ft)	Mile	\$ 86,286,336				
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$ 78,843,904				\$ -
	Trench Short (4 tracks) (<1000 ft)	Mile	\$ 118,265,856				
16	Mechanical & Electrical for Tunnels	Mile	\$ 11,848,704				\$ -
17	Retaining Walls	Mile	\$ 8,613,888			0.00	\$ -
18	Containment Walls	Mile	\$ 5,907,456				\$ -
19	Single Track Cut and Cover Subway	Mile	\$ 131,246,080				\$ -
	Four Track Drill & Blast	Mile	\$ 293,775,360				\$ -
	Four Track Mined (Soft Soil)	Mile	\$ 158,400,000				\$ -
	Four Track TBM (<6 Miles)	Mile	\$ 213,274,624				\$ -
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$ 353,441,792				\$ -
	Four Track Cut & Cover Tunnel	Mile	\$ 262,492,160			0.00	\$ -
	Grade Separations						
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$ 13,284,352				\$ -
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$ 19,926,528				\$ -
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$ 2,759,680				\$ -
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$ 2,029,568				\$ -
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$ 3,563,520			0	\$ -
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$ 3,593,216				\$ -
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$ 2,850,816			0	\$ -
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$ 3,171,328				\$ -
7	Street Bridging HSR Trench	ea	\$ 1,398,784				\$ -
8	Minor Crossing Closures	ea	\$ 87,040				\$ -

COST ELEMENTS		UNIT	UNIT PRICE	At-Grade			
Subsection 2			Base: 2009 (3rd Quarter)	A			
				Start: 450 + 00	End: 671 + 00	4.19 Miles	
Subsection Details					Quant.	Cost	
Double Track At-Grade (Mile)				Start: 450 + 00	End: 671 + 00	4.19 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Building Items							
1	Intermediate Passenger Stations	Each	\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000			1	\$ 15,000,000
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -
3	Maintenance Facility	Each	\$ 123,921,884				\$ -
4	Parking - Structures	space	\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -
Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -
ROW (Not Included)							
ROW required for each segment							
1	Dense Urban	Acre	\$ 2,786,321				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -
4	Suburban	Acre	\$ 208,418				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -
ROW required for Temp. Construction Easement							
1	Dense Urban	Acre					\$ -
2	Urban	Acre					\$ -
3	Dense Suburban	Acre					\$ -
4	Suburban	Acre					\$ -
5	Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$ 2,786,321				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -
9	Suburban	Acre	\$ 208,418				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -
Environmental Mitigation = 3% Line Costs							\$ 775,596
System Elements							
1	Signaling (ATC)	Mile	\$ 2,070,000			4.19	\$ 8,664,205
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			4.19	\$ 2,260,227
3	Wayside Protection System	Mile	\$ 108,000			4.19	\$ 452,045
Electrification Items							
1	Traction Power supply	Mile	\$ 1,170,000			4.19	\$ 4,897,159
2	Traction Power Distribution	Mile	\$ 1,485,000			4.19	\$ 6,215,625
Subtotal							\$ 49,118,044
Program Implementation Costs (per screening)							\$ 12,525,101
Program Implementation Costs							
Contingencies (per screening) (25%)							\$ 12,279,511
Subtotal							\$ 73,922,656
Subtotal (Rounded)							\$ 74,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Berm			
Subsection 2				Base: 2009 (3rd Quarter)	B			
					Start: 671 + 00	End: 724 + 00	1.00 Miles	
Subsection Details							Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 671 + 00	End: 724 + 00	1.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
	Double Track Section - Total							
1	Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -
2	Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -
3	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -
4	Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -
	Four Track Section - Total							
	Four-track Section - At Grade	Mile	\$	4,200,448			0.50	\$ 2,108,179
	Four-Track Section - On Structure	Mile	\$	9,400,320			0.50	\$ 4,717,964
	Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00	\$ -
	Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$ -
	Single Track - Total							
5	Single Track Section - At Grade	Mile	\$	1,549,312			0.00	\$ -
6	Single Track Section - On structure	Mile	\$	2,350,080			0.00	\$ -
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0.00	\$ -
8	Single Track Section - In Trench	Mile	\$	2,350,080			0.00	\$ -
9	Freight Double Track - At Grade	Mile	\$	2,839,552			0.00	\$ -
10	Freight Single Track - At Grade	Mile	\$	1,549,312			0.00	\$ -
	Earthwork Items							
1	Site Preparation - Undeveloped	Acre	\$	9,216			13.38	\$ 123,345
2	Total Cut	CY	\$	6.00			0.00	\$ -
3	Total Fill	CY	\$	6.00			196296.30	\$ 1,177,778
4	Borrow	CY	\$	13.00			196296.30	\$ 2,551,852
5	Spoil	CY	\$	13.00			0.00	\$ -
6	Landscape erosion Control	Acre	\$	6,144			0.00	\$ -
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -
8	Special Drainage Facilities	5% Earthwork						\$ 192,649
	Structures, Tunnels, Walls							
1	Standard Structure (2 tracks)	Mile	\$	34,972,672			0.50	\$ 17,552,572
2	High Structure	Mile	\$	40,424,448				\$ -
3	Long Span Structure	Mile	\$	61,919,232				\$ -
4	Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -
9	Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$ -
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312				
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -
12	Crossovers	ea	\$	442,368				\$ -
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$ -
14	Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0.00	\$ -
	Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336				
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856				
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$ -
17	Retaining Walls	Mile	\$	8,613,888			0.50	\$ 4,323,258
18	Containment Walls	Mile	\$	5,907,456				\$ -
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -
	Four Track Drill & Blast	Mile	\$	293,775,360				\$ -
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624				
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -
	Grade Separations							
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528			0	\$ -
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			2	\$ 5,519,360
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$ -
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$ -
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -
7	Street Bridging HSR Trench	ea	\$	1,398,784				\$ -
8	Minor Crossing Closures	ea	\$	87,040				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Berm			
Subsection 2				Base: 2009 (3rd Quarter)	B			
					Start: 671 + 00	End: 724 + 00	1.00 Miles	
Subsection Details							Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 671 + 00	End: 724 + 00	1.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
	Building Items							
1	Intermediate Passenger Stations	Each	\$	-				\$ -
2	Terminal Passenger Stations	Each	\$	-				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$ -
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$ -
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$ -
3	Maintenance Facility	Each	\$	123,921,884				\$ -
4	Parking - Structures	space	\$	-				\$ -
5	Parking - At Grade	space	\$	-				\$ -
	Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$ -
3	Single Track Removal	Mile	\$	130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$ -
	ROW (Not Included)							
	ROW required for each segment							
1	Dense Urban	Acre	\$	2,786,321				\$ -
2	Urban	Acre	\$	1,371,510				\$ -
3	Dense Suburban	Acre	\$	908,134				\$ -
4	Suburban	Acre	\$	208,418				\$ -
5	Undeveloped	Acre	\$	3,642				\$ -
	ROW required for Temp. Construction Easement							
1	Dense Urban	Acre						\$ -
2	Urban	Acre						\$ -
3	Dense Suburban	Acre						\$ -
4	Suburban	Acre						\$ -
5	Undeveloped	Acre						\$ -
	Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$	2,786,321				\$ -
7	Urban	Acre	\$	1,371,510				\$ -
8	Dense Suburban	Acre	\$	908,134				\$ -
9	Suburban	Acre	\$	208,418				\$ -
10	Undeveloped	Acre	\$	3,642				\$ -
	Environmental Mitigation = 3% Line Costs							\$ 1,148,009
	System Elements							
1	Signaling (ATC)	Mile	\$	2,070,000			1.00	\$ 2,077,841
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.00	\$ 542,045
3	Wayside Protection System	Mile	\$	108,000			1.00	\$ 108,409
	Electrification Items							
1	Traction Power supply	Mile	\$	117,000			1.00	\$ 117,443
2	Traction Power Distribution	Mile	\$	1,485,000			1.00	\$ 1,490,625
								\$ 43,751,330
	Program Implementation Costs (per screening)							\$ 11,156,589
	Program Implementation Costs							
	Contingencies (per screening) (25%)							\$ 10,937,832
	Subtotal							\$ 65,845,751
	Subtotal (Rounded)							\$ 66,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Berm				At-Grade (2 Tracks)				At-Grade (3 Tracks)				Elevated Viaduct (2 Tracks)					
Subsection 2			Base: 2009 (3rd Quarter)	C1				C2				C2				C2						
				Start: 724 + 00	End: 775 + 00	0.97 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile) (Three track where noted)						0.00 Miles			Start: 775 + 00	End: 843 + 00	1.29 Miles			Start: 775 + 00	End: 843 + 00	1.29 Miles			0.00 Miles			
Double Track Elevated (Mile)						0.97 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 775 + 00	End: 843 + 00	1.29 Miles	
Double Track Tunnel (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)						0.00 Miles			Start: 0 + 00	End: 0 + 00	0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Single Track At-Grade (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Single Track Elevated (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Single Track Tunnel (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Single Track Trench (Mile)						0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles	
Double Track Section - Total											1.29	\$ 2,704,834				0.00	\$ -				0.00	\$ -
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -				0.00	\$ -				0.00	\$ -				1.29	\$ 6,053,236
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.97	\$ 4,539,927				0.00	\$ -				0.00	\$ -				0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Three Track Section - Total ( See note)																						
Three-track Section - At Grade	Mile	\$	3,150,336			0.00	\$ -				0.00	\$ -				1.29	\$ 4,057,251				0.00	\$ -
Three-Track Section - On Structure	Mile	\$	7,050,240			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Three-Track Section - In Tunnel or Subway	Mile	\$	7,050,240			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Three-Track Section - In Trench	Mile	\$	7,050,240			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Four Track Section - Total																						
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Single Track - Total																						
5 Single Track Section - At Grade	Mile	\$	1,549,312			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Freight Double Track - At Grade																						
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Earthwork Items																						
1 Site Preparation - Undeveloped	Acre	\$	9,216			7.61	\$ 70,136				10.15	\$ 93,514				10.15	\$ 93,514				10.15	\$ 93,514
2 Total Cut	CY	\$	6.00			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
3 Total Fill	CY	\$	6.00			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
4 Borrow	CY	\$	13.00			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
5 Spoil	CY	\$	13.00			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
8 Special Drainage Facilities	5% Earthwork						\$ 3,507					\$ 4,676					\$ 4,676					\$ 4,676
Structures, Tunnels, Walls																						
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				\$ -				0.00	\$ -				0.00	\$ -				1.29	\$ 45,040,562
Standard Structure (3 tracks)																						
2 High Structure	Mile	\$	40,424,448				\$ -					\$ -					\$ -					\$ -
3 Long Span Structure	Mile	\$	61,919,232				\$ -					\$ -					\$ -					\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -					\$ -					\$ -					\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -					\$ -					\$ -					\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -					\$ -					\$ -					\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -					\$ -					\$ -					\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -					\$ -					\$ -					\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -					\$ -					\$ -					\$ -
Double Track TBM (<6 Miles)																						
Double Track TBM w/3rd Tube (>6 Miles)																						
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -					\$ -					\$ -					\$ -
12 Crossovers	ea	\$	442,368				\$ -					\$ -					\$ -					\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0.00	\$ -				0.00	\$ -				0.00	\$ -				0.00	\$ -
Trench Long (4 tracks) (1000 + ft)																						
Trench Long (1 track) (1000 + ft)																						
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -					\$ -					\$ -					\$ -
Trench Short (4 tracks) (<1000 ft)																						
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$ -					\$ -										

COST ELEMENTS			UNIT	UNIT PRICE	Berm				At-Grade (2 Tracks)				At-Grade (3 Tracks)				Elevated Viaduct (2 Tracks)					
Subsection 2				Base: 2009 (3rd Quarter)	C1				C2				C2				C2					
					Start: 724 + 00	End: 775 + 00	0.97 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles			
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile) (Three track where noted)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)						Start: 724 + 00	End: 775 + 00	0.97 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		
Double Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track At-Grade (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)				ea	\$	19,926,528			0	\$	-			\$	-			\$	-	0	\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)				ea	\$	2,759,680				\$	-	0	\$	-			0	\$	-		\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)				ea	\$	2,029,568				\$	-		\$	-				\$	-		\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)				ea	\$	3,563,520				\$	-	2	\$	7,127,040		2	\$	7,127,040			\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)				ea	\$	3,593,216				\$	-		\$	-				\$	-		\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)				ea	\$	2,850,816				\$	-	0	\$	-		0	\$	-			\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)				ea	\$	3,171,328				\$	-		\$	-			\$	-			\$	-
7 Street Bridging HSR Trench				ea	\$	1,398,784				\$	-		\$	-			\$	-			\$	-
8 Minor Crossing Closures				ea	\$	87,040				\$	-	2	\$	174,080		1	\$	87,040		0	\$	-
Building Items																						
1 Intermediate Passenger Stations				Each	\$	-				\$	-		\$	-			\$	-			\$	-
2 Terminal Passenger Stations				Each	\$	-				\$	-		\$	-			\$	-			\$	-
Caltrain Passenger Station - At-Grade				Each	\$	15,000,000		1	\$	15,000,000		0	\$	-		0	\$	-		0	\$	-
Caltrain Passenger Station - On Structure				Each	\$	15,000,000			\$	-		\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Tunnel or Subway				Each	\$	15,000,000			\$	-		\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Trench				Each	\$	15,000,000			\$	-		\$	-			\$	-			\$	-	
3 Maintenance Facility				Each	\$	123,921,884			\$	-		\$	-			\$	-			\$	-	
4 Parking - Structures				space	\$	-			\$	-		\$	-			\$	-			\$	-	
5 Parking - At Grade				space	\$	-			\$	-		\$	-			\$	-			\$	-	
Rail & Utility Relocation																						
1 Single Track Relocation (Temporary)				Mile	\$	2,000,896			\$	-		\$	-			\$	-			\$	-	
2 Single Track Relocation (Permanent)				Mile	\$	2,000,896			\$	-		\$	-			\$	-			\$	-	
3 Single Track Removal				Mile	\$	130,048			\$	-		\$	-			\$	-			\$	-	
4 Major Utility Relocations - Dense Urban				Mile	\$	1,548,288			\$	-		\$	-			\$	-			\$	-	
5 Major Utility Relocations - Urban				Mile	\$	1,084,416			\$	-		\$	-			\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban				Mile	\$	775,168			\$	-		\$	-			\$	-			\$	-	
7 Major Utility Relocations - Suburban				Mile	\$	464,896			\$	-		\$	-			\$	-			\$	-	
8 Major Utility Relocations - Undeveloped				Mile	\$	30,720			\$	-		\$	-			\$	-			\$	-	
ROW (Not Included)																						
ROW required for each segment																						
1 Dense Urban				Acre	\$	2,786,321			\$	-		\$	-			\$	-			\$	-	
2 Urban				Acre	\$	1,371,510			\$	-		\$	-			\$	-			\$	-	
3 Dense Suburban				Acre	\$	908,134			\$	-		\$	-			\$	-			\$	-	
4 Suburban				Acre	\$	208,418			\$	-		\$	-			\$	-			\$	-	
5 Undeveloped				Acre	\$	3,642			\$	-		\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement																						
1 Dense Urban				Acre					\$	-		\$	-			\$	-			\$	-	
2 Urban				Acre					\$	-		\$	-			\$	-			\$	-	
3 Dense Suburban				Acre					\$	-		\$	-			\$	-			\$	-	
4 Suburban				Acre					\$	-		\$	-			\$	-			\$	-	
5 Undeveloped				Acre					\$	-		\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																						
6 Dense Urban				Acre	\$	2,786,321			\$	-		\$	-			\$	-			\$	-	
7 Urban				Acre	\$	1,371,510			\$	-		\$	-			\$	-			\$	-	
8 Dense Suburban				Acre	\$	908,134			\$	-		\$	-			\$	-			\$	-	
9 Suburban				Acre	\$	208,418			\$	-		\$	-			\$	-			\$	-	
10 Undeveloped				Acre	\$	3,642			\$	-		\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs									\$	838,014			\$	303,124			\$	341,086			\$	1,535,760
System Elements																						
1 Signaling (ATC)				Mile	\$	2,070,000		0.97	\$	1,999,432		1.29	\$	2,665,909		1.29	\$	2,665,909		1.29	\$	2,665,909
2 Communications (w/ Fiber Optic Backbone)				Mile	\$	540,000		0.97	\$	521,591		1.29	\$	695,455		1.29	\$	695,455		1.29	\$	695,455
3 Wayside Protection System				Mile	\$	108,000		0.97	\$	104,318		1.29	\$	139,091		1.29	\$	139,091		1.29	\$	139,091
Electrification Items																						
1 Traction Power supply				Mile	\$	1,170,000		0.97	\$	1,130,114		1.29	\$	1,506,818		1.29	\$	1,506,818		1.29	\$	1,506,818
2 Traction Power Distribution				Mile	\$	1,485,000		0.97	\$	1,434,375		1.29	\$	1,912,500		1.29	\$	1,912,500		2.52	\$	3,742,200
Subtotal									\$	33,961,646			\$	17,327,041			\$	18,630,379			\$	61,477,221
Program Implementation Costs (per screening)									\$	8,660,220			\$	4,418,395			\$	4,750,747			\$	15,676,691
Program Implementation Costs																						
Contingencies (per screening) (25%)									\$	8,490,411			\$	4,331,760			\$	4,657,595			\$	15,369,305
Subtotal									\$	51,112,277			\$	26,077,196			\$	28,038,720			\$	92,523,217
Subtotal (Rounded)									\$	51,000,000			\$	26,000,000			\$	28,000,000			\$	93,000,000

Note: unit price for three track is interpolated from double and four tracks



COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (3 Tracks)				Berm (2 Tracks)				Berm (3 Tracks)				Open Trench (1 Track)			
Subsection 2				Base: 2009 (3rd Quarter)	C2				C2				C2				C2			
					Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles	
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile) (Three track where noted)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00 \$	-			1.29 \$	6,053,236			0.00 \$	-			0.00 \$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Three Track Section - Total ( See note)																				
Three-track Section - At Grade	Mile	\$	3,150,336				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Three-Track Section - On Structure	Mile	\$	7,050,240				1.29 \$	9,079,855			0.00 \$	-			1.29 \$	9,079,855			0.00 \$	-
Three-Track Section - In Tunnel or Subway	Mile	\$	7,050,240				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Three-Track Section - In Trench	Mile	\$	7,050,240				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Four-Track Section - On Structure	Mile	\$	9,400,320				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00 \$	-			0.00 \$	-			0.00 \$	-			0 \$	-
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
6 Single Track Section - On structure	Mile	\$	2,350,080				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 Miles \$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0.00 \$	-			0.00 \$	-			0.00 \$	-			0 \$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080				0.00 \$	-			0.00 \$	-			0.00 \$	-			1.29 \$	3,026,618
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0.00 \$	-			0.00 \$	-			0.00 \$	-			0 \$	-
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0.00 \$	-			0.00 \$	-			0.00 \$	-			0 \$	-
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				17.17 \$	158,255			10.15 \$	93,514			17.17 \$	158,255			10.15 \$	93,514
2 Total Cut	CY	\$	6.00				0.00 \$	-			1385185.19 \$	8,311,111			0.00 \$	-			0.00 \$	-
3 Total Fill	CY	\$	6.00				0.00 \$	-			503703.70 \$	3,022,222			0.00 \$	-			0.00 \$	-
4 Borrow	CY	\$	13.00				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
5 Spoil	CY	\$	13.00				0.00 \$	-			881481.48 \$	11,459,259			0.00 \$	-			0.00 \$	-
6 Landscape erosion Control	Acre	\$	6,144				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
8 Special Drainage Facilities	5% Earthwork						\$	7,913			\$	1,144,305			\$	7,913			\$	4,676
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00 \$	-			0.00 \$	-			1.29 \$	45,040,562			0.00 \$	-
Standard Structure (3 tracks)	Mile	\$	52,459,008				1.29 \$	67,560,844												
2 High Structure	Mile	\$	40,424,448				\$	-			\$	-			\$	-			\$	-
3 Long Span Structure	Mile	\$	61,919,232				\$	-			\$	-			\$	-			\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-			\$	-			\$	-			\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-			\$	-			\$	-			\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-			\$	-			\$	-			\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-			\$	-			\$	-			\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-			\$	-			\$	-			\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$	-			\$	-			\$	-			\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-			\$	-			\$	-			\$	-
12 Crossovers	ea	\$	442,368				\$	-			\$	-			\$	-			\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224				0.00 \$	-			0.00 \$	-			0.00 \$	-			0.00 \$	-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336																	
Trench Long (1 track) (1000 + ft)	Mile	\$	40,266,957																1.29 \$	51,858,960
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-			\$	-			\$	-			0.00 \$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856																	
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$	-			\$	-			\$	-				

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (3 Tracks)				Berm (2 Tracks)				Berm (3 Tracks)				Open Trench (1 Track)					
Subsection 2			Base: 2009 (3rd Quarter)	C2				C2				C2				C2						
				Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles				
Subsection Details					Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost				
Double Track At-Grade (Mile) (Three track where noted)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)					Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Single Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles			
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)			ea	\$	19,926,528			0	\$	-			0	\$	-				\$	-		
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)			ea	\$	2,759,680				\$	-				\$	-				\$	-		
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)			ea	\$	2,029,568				\$	-				\$	-				\$	-		
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)			ea	\$	3,563,520				\$	-				\$	-				\$	-		
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)			ea	\$	3,593,216				\$	-				\$	-				\$	-		
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)			ea	\$	2,850,816				\$	-				\$	-				\$	-		
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)			ea	\$	3,171,328				\$	-				\$	-				\$	-		
7 Street Bridging HSR Trench			ea	\$	1,398,784				\$	-				\$	-				\$	-		
8 Minor Crossing Closures			ea	\$	87,040			0	\$	-				\$	-				0	\$	-	
								1	\$	87,040												
Building Items																						
1 Intermediate Passenger Stations			Each	\$	-				\$	-				\$	-				\$	-		
2 Terminal Passenger Stations			Each	\$	-				\$	-				\$	-				\$	-		
Caltrain Passenger Station - At-Grade			Each	\$	15,000,000		0	\$	-		0	\$	-		0	\$	-			1	\$	-
Caltrain Passenger Station - On Structure			Each	\$	15,000,000			\$	-			\$	-			\$	-				\$	-
Caltrain Passenger Station - In Tunnel or Subway			Each	\$	15,000,000			\$	-			\$	-			\$	-				\$	-
Caltrain Passenger Station - In Trench			Each	\$	15,000,000			\$	-			\$	-			\$	-				\$	-
3 Maintenance Facility			Each	\$	123,921,884			\$	-			\$	-			\$	-				\$	-
4 Parking - Structures			space	\$	-			\$	-			\$	-			\$	-				\$	-
5 Parking - At Grade			space	\$	-			\$	-			\$	-			\$	-				\$	-
Rail & Utility Relocation																						
1 Single Track Relocation (Temporary)			Mile	\$	2,000,896			\$	-			\$	-			\$	-			\$	-	
2 Single Track Relocation (Permanent)			Mile	\$	2,000,896			\$	-			\$	-			\$	-			\$	-	
3 Single Track Removal			Mile	\$	130,048			\$	-			\$	-			\$	-			\$	-	
4 Major Utility Relocations - Dense Urban			Mile	\$	1,548,288			\$	-			\$	-			\$	-			\$	-	
5 Major Utility Relocations - Urban			Mile	\$	1,084,416			\$	-			\$	-			\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban			Mile	\$	775,168			\$	-			\$	-			\$	-			\$	-	
7 Major Utility Relocations - Suburban			Mile	\$	464,896			\$	-			\$	-			\$	-			\$	-	
8 Major Utility Relocations - Undeveloped			Mile	\$	30,720			\$	-			\$	-			\$	-			\$	-	
ROW (Not Included)																						
ROW required for each segment																						
1 Dense Urban			Acre	\$	2,786,321			\$	-			\$	-			\$	-			\$	-	
2 Urban			Acre	\$	1,371,510			\$	-			\$	-			\$	-			\$	-	
3 Dense Suburban			Acre	\$	908,134			\$	-			\$	-			\$	-			\$	-	
4 Suburban			Acre	\$	208,418			\$	-			\$	-			\$	-			\$	-	
5 Undeveloped			Acre	\$	3,642			\$	-			\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement																						
1 Dense Urban			Acre					\$	-			\$	-			\$	-			\$	-	
2 Urban			Acre					\$	-			\$	-			\$	-			\$	-	
3 Dense Suburban			Acre					\$	-			\$	-			\$	-			\$	-	
4 Suburban			Acre					\$	-			\$	-			\$	-			\$	-	
5 Undeveloped			Acre					\$	-			\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																						
6 Dense Urban			Acre	\$	2,786,321			\$	-			\$	-			\$	-			\$	-	
7 Urban			Acre	\$	1,371,510			\$	-			\$	-			\$	-			\$	-	
8 Dense Suburban			Acre	\$	908,134			\$	-			\$	-			\$	-			\$	-	
9 Suburban			Acre	\$	208,418			\$	-			\$	-			\$	-			\$	-	
10 Undeveloped			Acre	\$	3,642			\$	-			\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs								\$	2,304,206			\$	902,509			\$	1,628,598			\$	1,652,124	
System Elements																						
1 Signaling (ATC)			Mile	\$	2,070,000		1.29	\$	2,665,909		1.29	\$	2,665,909		1.29	\$	2,665,909		1.29	\$	695,455	
2 Communications (w/ Fiber Optic Backbone)			Mile	\$	540,000		1.29	\$	695,455		1.29	\$	695,455		1.29	\$	695,455		1.29	\$	139,091	
3 Wayside Protection System			Mile	\$	108,000		1.29	\$	139,091		1.29	\$	139,091		1.29	\$	139,091			\$	-	
Electrification Items																						
1 Traction Power supply			Mile	\$	1,170,000		1.29	\$	1,506,818		1.29	\$	1,506,818		1.29	\$	1,506,818		1.29	\$	1,912,500	
2 Traction Power Distribution			Mile	\$	1,485,000		2.52	\$	3,742,200		1.29	\$	1,912,500		1.29	\$	1,912,500			\$	-	
								\$	87,860,544			\$	37,905,931			\$	62,834,954			\$	59,469,977	
Program Implementation Costs (per screening)								\$	22,404,439			\$	9,666,012			\$	16,022,913			\$	15,164,844	
Program Implementation Costs																						
Contingencies (per screening) (25%)								\$	21,965,136			\$	9,476,483			\$	15,708,739			\$	14,867,494	
Subtotal								\$	132,230,119			\$	57,048,425			\$	94,566,607			\$	89,502,316	
Subtotal (Rounded)								\$	132,000,000			\$	57,000,000			\$	95,000,000			\$	90,000,000	

Note: unit price for three track is interpolated from double and four tracks

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (2 Tracks)				Covered Trench (1 Track) (HST only)				Covered Trench (2 Tracks) (HST only)					
Subsection 2				Base: 2009 (3rd Quarter)	C2				C2				C2					
					Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles			
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile) (Three track where noted)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles			
Double Track Trench (Mile)					Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles				0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles			
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Single Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00		0.00 Miles			
Double Track Section - Total																		
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$	-			0.00	\$	-		0.00	\$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$	-			0.00	\$	-		0.00	\$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$	-			0.00	\$	-		1.29	\$	6,053,236
4 Double Track Section - In Trench	Mile	\$	4,700,160				1.29	\$	6,053,236			0.00	\$	-		0.00	\$	-
Three Track Section - Total ( See note)																		
Three-track Section - At Grade	Mile	\$	3,150,336				0.00	\$	-			0.00	\$	-		0.00	\$	-
Three-Track Section - On Structure	Mile	\$	7,050,240				0.00	\$	-			0.00	\$	-		0.00	\$	-
Three-Track Section - In Tunnel or Subway	Mile	\$	7,050,240				0.00	\$	-			0.00	\$	-		0.00	\$	-
Three-Track Section - In Trench	Mile	\$	7,050,240				0.00	\$	-			0.00	\$	-		0.00	\$	-
Four Track Section - Total																		
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$	-			0.00	\$	-		0.00	\$	-
Four-Track Section - On Structure	Mile	\$	9,400,320				0.00	\$	-			0.00	\$	-		0.00	\$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0	\$	-			0.00	\$	-		0.00	\$	-
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$	-			0	\$	-		0	\$	-
Single Track - Total																		
5 Single Track Section - At Grade	Mile	\$	1,549,312				0	\$	-			0.00	\$	-		0	\$	-
6 Single Track Section - On structure	Mile	\$	2,350,080				0	\$	-			0	\$	-		0	\$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0	\$	-			0	\$	-		0	\$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080				0	\$	-			1.29	\$	3,026,618		0	\$	-
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0	\$	-			0	\$	-		0	\$	-
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0	\$	-			0	\$	-		0	\$	-
Earthwork Items																		
1 Site Preparation - Undeveloped	Acre	\$	9,216				27.32	\$	251,769			10.15	\$	93,514		17.17	\$	158,255
2 Total Cut	CY	\$	6.00				0.00	\$	-			0.00	\$	-		0.00	\$	-
3 Total Fill	CY	\$	6.00				0.00	\$	-			0.00	\$	-		0.00	\$	-
4 Borrow	CY	\$	13.00				0.00	\$	-			0.00	\$	-		0.00	\$	-
5 Spoil	CY	\$	13.00				0.00	\$	-			0.00	\$	-		0.00	\$	-
6 Landscape erosion Control	Acre	\$	6,144				0.00	\$	-			0.00	\$	-		0.00	\$	-
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00	\$	-			0.00	\$	-		0.00	\$	-
8 Special Drainage Facilities	5% Earthwork							\$	12,588				\$	4,676			\$	7,913
Structures, Tunnels, Walls																		
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00	\$	-			0.00	\$	-		0.00	\$	-
Standard Structure (3 tracks)	Mile	\$	52,459,008															
2 High Structure	Mile	\$	40,424,448					\$	-				\$	-			\$	-
3 Long Span Structure	Mile	\$	61,919,232					\$	-				\$	-			\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$	-				\$	-			\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$	-				\$	-			\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$	-				\$	-			\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$	-				\$	-			\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$	-				\$	-			\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$	-			0.00	\$	-		1.29	\$	189,173,527
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000					\$	-				\$	-			\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312															
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896															
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$	-				\$	-			\$	-
12 Crossovers	ea	\$	442,368					\$	-				\$	-			\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$	-			0.00	\$	-		0.00	\$	-
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224				1.29	\$	74,084,228			0.00	\$	-		0.00	\$	-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336															
Trench Long (1 track) (1000 + ft)	Mile	\$	40,266,957															
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$	-				\$	-			\$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856															
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704					\$	-			1.29	\$	15,259,695		1.29	\$	15,259,695
17 Retaining Walls	Mile	\$	8,613,888				0.00	\$	-			0.00	\$	-		0.00	\$	-
18 Containment Walls	Mile	\$	5,907,456				0.00	\$	-				\$	-			\$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$	-			1.29	\$	169,029,042			\$	-
Four Track Drill & Blast	Mile	\$	293,775,360					\$	-				\$	-			\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$	-				\$	-			\$	-
Four Track TBM (<6 Miles)	Mile	\$	213,274,624															
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792															
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$	-			0.00	\$	-		0.00	\$	-
Grade Separations																		
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$	-				\$	-			\$	-

COST ELEMENTS				UNIT	UNIT PRICE	Open Trench (2 Tracks)				Covered Trench (1 Track) (HST only)				Covered Trench (2 Tracks) (HST only)				
Subsection 2					Base: 2009 (3rd Quarter)	C2				C2				C2				
						Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		
Subsection Details								Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile) (Three track where noted)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		
Double Track Trench (Mile)						Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles				0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Single Track At-Grade (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 775 + 00	End: 843 + 00	1.29 Miles		Start: 0 + 00		0.00 Miles		
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)		ea	\$	19,926,528				\$	-			\$	-			\$	-	
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)		ea	\$	2,759,680				\$	-			\$	-			\$	-	
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)		ea	\$	2,029,568				\$	-			\$	-			\$	-	
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)		ea	\$	3,563,520				\$	-			\$	-			\$	-	
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)		ea	\$	3,593,216				\$	-			\$	-			\$	-	
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)		ea	\$	2,850,816				\$	-			\$	-			\$	-	
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)		ea	\$	3,171,328				\$	-			\$	-			\$	-	
7 Street Bridging HSR Trench		ea	\$	1,398,784			0	\$	-			0	\$	-		0	\$	-
8 Minor Crossing Closures		ea	\$	87,040			1	\$	87,040			0	\$	-		0	\$	-
Building Items																		
1 Intermediate Passenger Stations		Each	\$	-				\$	-			\$	-			\$	-	
2 Terminal Passenger Stations		Each	\$	-			1	\$	-			1	\$	-		1	\$	-
Caltrain Passenger Station - At-Grade		Each	\$	\$15,000,000				\$	-			\$	-			\$	-	
Caltrain Passenger Station - On Structure		Each	\$	\$15,000,000				\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Tunnel or Subway		Each	\$	\$15,000,000				\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Trench		Each	\$	\$15,000,000				\$	-			\$	-			\$	-	
3 Maintenance Facility		Each	\$	123,921,884				\$	-			\$	-			\$	-	
4 Parking - Structures		space	\$	-				\$	-			\$	-			\$	-	
5 Parking - At Grade		space	\$	-				\$	-			\$	-			\$	-	
Rail & Utility Relocation																		
1 Single Track Relocation (Temporary)		Mile	\$	2,000,896				\$	-			\$	-			\$	-	
2 Single Track Relocation (Permanent)		Mile	\$	2,000,896				\$	-			\$	-			\$	-	
3 Single Track Removal		Mile	\$	130,048				\$	-			\$	-			\$	-	
4 Major Utility Relocations - Dense Urban		Mile	\$	1,548,288				\$	-			\$	-			\$	-	
5 Major Utility Relocations - Urban		Mile	\$	1,084,416				\$	-			\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban		Mile	\$	775,168				\$	-			\$	-			\$	-	
7 Major Utility Relocations - Suburban		Mile	\$	464,896				\$	-			\$	-			\$	-	
8 Major Utility Relocations - Undeveloped		Mile	\$	30,720				\$	-			\$	-			\$	-	
ROW (Not Included)																		
ROW required for each segment																		
1 Dense Urban		Acre	\$	2,786,321				\$	-			\$	-			\$	-	
2 Urban		Acre	\$	1,371,510				\$	-			\$	-			\$	-	
3 Dense Suburban		Acre	\$	908,134				\$	-			\$	-			\$	-	
4 Suburban		Acre	\$	208,418				\$	-			\$	-			\$	-	
5 Undeveloped		Acre	\$	3,642				\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement																		
1 Dense Urban		Acre						\$	-			\$	-			\$	-	
2 Urban		Acre						\$	-			\$	-			\$	-	
3 Dense Suburban		Acre						\$	-			\$	-			\$	-	
4 Suburban		Acre						\$	-			\$	-			\$	-	
5 Undeveloped		Acre						\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																		
6 Dense Urban		Acre	\$	2,786,321				\$	-			\$	-			\$	-	
7 Urban		Acre	\$	1,371,510				\$	-			\$	-			\$	-	
8 Dense Suburban		Acre	\$	908,134				\$	-			\$	-			\$	-	
9 Suburban		Acre	\$	208,418				\$	-			\$	-			\$	-	
10 Undeveloped		Acre	\$	3,642				\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs								\$	2,414,666			\$	5,622,406			\$	6,319,579	
System Elements																		
1 Signaling (ATC)		Mile	\$	2,070,000			1.29	\$	695,455			1.29	\$	695,455		1.29	\$	695,455
2 Communications (w/ Fiber Optic Backbone)		Mile	\$	540,000			1.29	\$	139,091			1.29	\$	139,091		1.29	\$	139,091
3 Wayside Protection System		Mile	\$	108,000				\$	-			1.29	\$	-		1.29	\$	-
Electrification Items																		
1 Traction Power supply		Mile	\$	1,170,000			1.29	\$	1,912,500			1.29	\$	1,912,500		1.29	\$	1,912,500
2 Traction Power Distribution		Mile	\$	1,485,000				\$	-			\$	-			\$	-	
Subtotal								\$	85,650,573			\$	195,782,997			\$	219,719,250	
Program Implementation Costs (per screening)								\$	21,840,896			\$	49,924,664			\$	56,028,409	
Program Implementation Costs																		
Contingencies (per screening) (25%)								\$	21,412,643			\$	48,945,749			\$	54,929,812	
Subtotal								\$	128,904,112			\$	294,653,410			\$	330,677,471	
Subtotal (Rounded)								\$	129,000,000			\$	295,000,000			\$	331,000,000	

Note: unit price for three track is interpolated from double and four tracks

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (3 Tracks)				Open Trench (HST only) (1 Track)				Open Trench (HST only) (2 Tracks)			
Subsection 2			Base: 2009 (3rd Quarter)		D				D				D				D			
					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles	
							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Subsection Details					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				1.17	\$ 2,466,172			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.2	\$ 5,519,127
Three Track Section - Total ( See note)																				
Three-track Section - At Grade	Mile	\$	3,150,336				0.00	\$ -			1.17	\$ 3,699,258			0.00	\$ -			0.00	\$ -
Three-Track Section - On Structure	Mile	\$	7,050,240				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Three-Track Section - In Tunnel or Subway	Mile	\$	7,050,240				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Three-Track Section - In Trench	Mile	\$	7,050,240				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320				0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0	\$ -			0	\$ -			1.2	\$ 2,759,564			0	\$ -
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				9.25	\$ 85,263			15.66	\$ 144,291			7.12	\$ 65,587			9.25	\$ 85,263
2 Total Cut	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Total Fill	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Borrow	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork							\$ 4,263				\$ 7,215				\$ 3,279				\$ 4,263
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 High Structure	Mile	\$	40,424,448					\$ -				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232					\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$ -				\$ -				\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000					\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$ -				\$ -				\$ -				\$ -
12 Crossovers	ea	\$	442,368					\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.17	\$ 67,547,384
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336																	
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856																	
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704					\$ -				\$ -				\$ -				\$ -
17 Retaining Walls	Mile	\$	8,613,888				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456					\$ -				\$ -			0.00	\$ -			0.00	\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528					\$ -				\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680					\$ -				\$ -				\$ -				\$ -



COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 Tracks)				At-Grade (3 Tracks)				Open Trench (HST only) (1 Track)				Open Trench (HST only) (2 Tracks)				
Subsection 2			Base: 2009 (3rd Quarter)		D				D				D				D				
					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		
							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Subsection Details																					
Double Track At-Grade (Mile)					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 0 + 00		0.00 Miles		
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -				\$ -				\$ -	
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				0	\$ -			0	\$ -				\$ -				\$ -	
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -				\$ -				\$ -	
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -				\$ -				\$ -	
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -				\$ -				\$ -	
7 Street Bridging HSR Trench	ea	\$	1,398,784					\$ -				\$ -			0	\$ -			0	\$ -	
8 Minor Crossing Closures	ea	\$	87,040				1	\$ 87,040			1	\$ 87,040			1	\$ 87,040			1	\$ 87,040	
Building Items																					
1 Intermediate Passenger Stations	Each	\$	-					\$ -				\$ -				\$ -				\$ -	
1 Intermediate Passenger Stations (Millbrae)	Each	\$	12,562,617				0	\$ -			0.5	\$ 6,281,309			0.5	\$ 6,281,309			1	\$ 12,562,617	
2 Terminal Passenger Stations	Each	\$	-					\$ -				\$ -				\$ -				\$ -	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				0	\$ -			0.5	\$ 7,500,000				\$ -				\$ -	
Caltrain Passenger Station - On Structure	Each	\$	15,000,000					\$ -				\$ -				\$ -				\$ -	
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000					\$ -				\$ -				\$ -				\$ -	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000					\$ -				\$ -				\$ -				\$ -	
3 Maintenance Facility	Each	\$	123,921,884					\$ -				\$ -				\$ -				\$ -	
4 Parking - Structures	space	\$	-					\$ -				\$ -				\$ -				\$ -	
5 Parking - At Grade	space	\$	-					\$ -				\$ -				\$ -				\$ -	
Rail & Utility Relocation																					
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896					\$ -				\$ -				\$ -				\$ -	
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896					\$ -				\$ -				\$ -				\$ -	
3 Single Track Removal	Mile	\$	130,048					\$ -				\$ -				\$ -				\$ -	
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288					\$ -				\$ -				\$ -				\$ -	
5 Major Utility Relocations - Urban	Mile	\$	1,084,416					\$ -				\$ -				\$ -				\$ -	
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168					\$ -				\$ -				\$ -				\$ -	
7 Major Utility Relocations - Suburban	Mile	\$	464,896					\$ -				\$ -				\$ -				\$ -	
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720					\$ -				\$ -				\$ -				\$ -	
ROW (Not Included)																					
ROW required for each segment																					
1 Dense Urban	Acre	\$	2,786,321					\$ -				\$ -				\$ -				\$ -	
2 Urban	Acre	\$	1,371,510					\$ -				\$ -				\$ -				\$ -	
3 Dense Suburban	Acre	\$	908,134					\$ -				\$ -				\$ -				\$ -	
4 Suburban	Acre	\$	208,418					\$ -				\$ -				\$ -				\$ -	
5 Undeveloped	Acre	\$	3,642					\$ -				\$ -				\$ -				\$ -	
ROW required for Temp. Construction Easement																					
1 Dense Urban	Acre							\$ -				\$ -				\$ -				\$ -	
2 Urban	Acre							\$ -				\$ -				\$ -				\$ -	
3 Dense Suburban	Acre							\$ -				\$ -				\$ -				\$ -	
4 Suburban	Acre							\$ -				\$ -				\$ -				\$ -	
5 Undeveloped	Acre							\$ -				\$ -				\$ -				\$ -	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																					
6 Dense Urban	Acre	\$	2,786,321					\$ -				\$ -				\$ -				\$ -	
7 Urban	Acre	\$	1,371,510					\$ -				\$ -				\$ -				\$ -	
8 Dense Suburban	Acre	\$	908,134					\$ -				\$ -				\$ -				\$ -	
9 Suburban	Acre	\$	208,418					\$ -				\$ -				\$ -				\$ -	
10 Undeveloped	Acre	\$	3,642					\$ -				\$ -				\$ -				\$ -	
Environmental Mitigation = 3% Line Costs								\$ 79,282				\$ 531,573				\$ 275,903				\$ 2,574,171	
System Elements																					
1 Signaling (ATC)	Mile	\$	2,070,000				1.17	\$ 2,430,682				1.17	\$ 2,430,682			1.17	\$ 2,430,682			1.17	\$ 2,430,682
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000				1.17	\$ 634,091				1.17	\$ 634,091			1.17	\$ 634,091			1.17	\$ 634,091
3 Wayside Protection System	Mile	\$	108,000				1.17	\$ 126,818				1.17	\$ 126,818			1.17	\$ 126,818			1.17	\$ 126,818
Electrification Items																					
1 Traction Power supply	Mile	\$	1,170,000				1.17	\$ 1,373,864				1.17	\$ 1,373,864			1.17	\$ 1,373,864			1.17	\$ 1,373,864
2 Traction Power Distribution	Mile	\$	1,485,000				1.17	\$ 1,743,750				1.17	\$ 1,743,750			1.17	\$ 1,743,750			1.17	\$ 1,743,750
Program Implementation Costs (per screening)								\$ 9,031,225				\$ 24,559,890				\$ 15,781,886				\$ 94,689,070	
Program Implementation Costs								\$ 2,302,962				\$ 6,262,772				\$ 4,024,381				\$ 24,145,713	
Contingencies (per screening) (25%)								\$ 2,257,806				\$ 6,139,973				\$ 3,945,472				\$ 23,672,267	
Subtotal								\$ 13,591,993				\$ 36,962,635				\$ 23,751,739				\$ 142,507,050	
Subtotal (Rounded)								\$ 14,000,000				\$ 37,000,000				\$ 24,000,000				\$ 143,000,000	

Note: unit price for three track is interpolated from double and four tracks



COST ELEMENTS			UNIT	UNIT PRICE	Covered Trench (HST only) (1 Track)				Covered Trench (HST only) (2 Tracks)					
Subsection 2			Base: 2009 (3rd Quarter)		D				D					
					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles			
Subsection Details					Quant.	Cost			Quant.	Cost				
Double Track At-Grade (Mile)					0.00 Miles				0.00 Miles					
Double Track Elevated (Mile)					0.00 Miles				0.00 Miles					
Double Track Tunnel (Mile)					0.00 Miles				1.17 Miles					
Double Track Trench (Mile)					0.00 Miles				0.00 Miles					
Four Track Construction/Reconstruction At-Grade (Mile)					0.00 Miles				0.00 Miles					
Four Track Elevated (Mile)					0.00 Miles				0.00 Miles					
Four Track Tunnel (Mile)					0.00 Miles				0.00 Miles					
Four Track Trench (Mile)					0.00 Miles				0.00 Miles					
Single Track At-Grade (Mile)					0.00 Miles				0.00 Miles					
Single Track Elevated (Mile)					0.00 Miles				0.00 Miles					
Single Track Tunnel (Mile)					1.17 Miles				0.00 Miles					
Single Track Trench (Mile)					0.00 Miles				0.00 Miles					
Double Track Section - Total									0.00	\$	-			
1 Double Track Section - At Grade			Mile	\$	2,100,224				0.00	\$	-			
2 Double Track Section - On Structure			Mile	\$	4,700,160				0.00	\$	-			
3 Double Track Section - In Tunnel or Subway			Mile	\$	4,700,160				1.17	\$	5,519,127			
4 Double Track Section - In Trench			Mile	\$	4,700,160				0.00	\$	-			
Three Track Section - Total ( See note)														
Three-track Section - At Grade			Mile	\$	3,150,336				0.00	\$	-			
Three-Track Section - On Structure			Mile	\$	7,050,240				0.00	\$	-			
Three-Track Section - In Tunnel or Subway			Mile	\$	7,050,240				0.00	\$	-			
Three-Track Section - In Trench			Mile	\$	7,050,240				0.00	\$	-			
Four Track Section - Total														
Four-track Section - At Grade			Mile	\$	4,200,448				0.00	\$	-			
Four-Track Section - On Structure			Mile	\$	9,400,320				0	\$	-			
Four-Track Section - In Tunnel or Subway			Mile	\$	9,400,320				0.00	\$	-			
Four-Track Section - In Trench			Mile	\$	9,400,320				0	\$	-			
Single Track - Total														
5 Single Track Section - At Grade			Mile	\$	1,549,312				0	\$	-			
6 Single Track Section - On structure			Mile	\$	2,350,080				0	\$	-			
7 Single Track Section - In Tunnel or Subway			Mile	\$	2,350,080			1.17	\$	2,759,564				
8 Single Track Section - In Trench			Mile	\$	2,350,080				0	\$	-			
9 Freight Double Track - At Grade			Mile	\$	2,839,552				0	\$	-			
10 Freight Single Track - At Grade			Mile	\$	1,549,312				0	\$	-			
Earthwork Items														
1 Site Preparation - Undeveloped			Acre	\$	9,216			9.25	\$	85,263				
2 Total Cut			CY	\$	6.00			298518.52	\$	1,791,111				
3 Total Fill			CY	\$	6.00				0.00	\$	-			
4 Borrow			CY	\$	13.00				0.00	\$	-			
5 Spoil			CY	\$	13.00			298518.52	\$	3,880,741				
6 Landscape erosion Control			Acre	\$	6,144				0.00	\$	-			
7 Security Fencing (Both sides of ROW)			Mile	\$	144,384				0.00	\$	-			
8 Special Drainage Facilities			5% Earthwork					\$	287,856		\$	487,140		
Structures, Tunnels, Walls														
1 Standard Structure (2 tracks)			Mile	\$	34,972,672			0.00	\$	-		0.00	\$	-
2 High Structure			Mile	\$	40,424,448				\$	-		\$	-	
3 Long Span Structure			Mile	\$	61,919,232				\$	-		\$	-	
4 Waterway Crossing - Primary			Mile	\$	85,342,208				\$	-		\$	-	
5 Waterway Crossing - Secondary (Irrigation Canal)			Mile	\$	92,049,408				\$	-		\$	-	
6 Twin Single Track Drill&Blast (<6 Miles)			Mile	\$	142,731,264				\$	-		\$	-	
7 Twin Single Track TBM (<6 Miles)			Mile	\$	106,637,312				\$	-		\$	-	
8 Twin Single Track TBM w/3rd Tube (<6 Miles)			Mile	\$	176,720,896				\$	-		\$	-	
9 Double Track Drill & Blast			Mile	\$	146,887,680			0.00	\$	-		1.17	\$	172,481,745
10 Double Track Mined (Soft Soil)			Mile	\$	79,200,000				\$	-		\$	-	
Double Track TBM (<6 Miles)			Mile	\$	106,637,312									
Double Track TBM w/3rd Tube (>6 Miles)			Mile	\$	176,720,896									
11 Seismic Chamber (Drill & Blast/Mined)			ea	\$	126,205,952				\$	-		\$	-	
12 Crossovers			ea	\$	442,368				\$	-		\$	-	
13 Cut & Cover Double Track Tunnel			Mile	\$	131,246,080			0.00	\$	-		0.00	\$	-
14 Trench Long (2 tracks) (1000 + ft)			Mile	\$	57,524,224			0.00	\$	-		0.00	\$	-
Trench Long (4 tracks) (1000 + ft)			Mile	\$	86,286,336									
15 Trench Short (2 tracks) (<1000 ft)			Mile	\$	78,843,904				\$	-		\$	-	
Trench Short (4 tracks) (<1000 ft)			Mile	\$	118,265,856									
16 Mechanical & Electrical for Tunnels			Mile	\$	11,848,704			1.17	\$	13,913,251		1.17	\$	13,913,251
17 Retaining Walls			Mile	\$	8,613,888			0.00	\$	-		0.00	\$	-
18 Containment Walls			Mile	\$	5,907,456				\$	-		\$	-	
19 Single Track Cut and Cover Subway			Mile	\$	131,246,080			1.17	\$	154,114,715		\$	-	
Four Track Drill & Blast			Mile	\$	293,775,360				\$	-		\$	-	
Four Track Mined (Soft Soil)			Mile	\$	158,400,000				\$	-		\$	-	
Four Track TBM (<6 Miles)			Mile	\$	213,274,624									
Four Track TBM w/3rd Tube (>6 Miles)			Mile	\$	353,441,792									
Four Track Cut & Cover Tunnel			Mile	\$	262,492,160			0.00	\$	-		0.00	\$	-
Grade Separations														
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)			ea	\$	13,284,352				\$	-		\$	-	
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)			ea	\$	19,926,528				\$	-		\$	-	
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)			ea	\$	2,759,680				\$	-		\$	-	

COST ELEMENTS			UNIT	UNIT PRICE	Covered Trench (HST only) (1 Track)				Covered Trench (HST only) (2 Tracks)			
Subsection 2			Base: 2009 (3rd Quarter)		D				D			
					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 843 + 00	End: 905 + 00	1.17 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Tunnel (Mile)					Start: 843 + 00	End: 905 + 00	1.17 Miles		Start: 0 + 00		0.00 Miles	
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -
7 Street Bridging HSR Trench	ea	\$	1,398,784				0	\$ -			0	\$ -
8 Minor Crossing Closures	ea	\$	87,040				0	\$ -			0	\$ -
Building Items												
1 Intermediate Passenger Stations	Each	\$	-				0.5	\$ 6,281,309			1	\$ 12,562,617
1 Intermediate Passenger Stations (Millbrae)	Each	\$	12,562,617					\$ -				\$ -
2 Terminal Passenger Stations	Each	\$	-					\$ -				\$ -
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000					\$ -				\$ -
Caltrain Passenger Station - On Structure	Each	\$	15,000,000					\$ -				\$ -
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000					\$ -				\$ -
Caltrain Passenger Station - In Trench	Each	\$	15,000,000					\$ -				\$ -
3 Maintenance Facility	Each	\$	123,921,884					\$ -				\$ -
4 Parking - Structures	space	\$	-					\$ -				\$ -
5 Parking - At Grade	space	\$	-					\$ -				\$ -
Rail & Utility Relocation												
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896					\$ -				\$ -
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896					\$ -				\$ -
3 Single Track Removal	Mile	\$	130,048					\$ -				\$ -
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288					\$ -				\$ -
5 Major Utility Relocations - Urban	Mile	\$	1,084,416					\$ -				\$ -
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168					\$ -				\$ -
7 Major Utility Relocations - Suburban	Mile	\$	464,896					\$ -				\$ -
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720					\$ -				\$ -
ROW (Not Included)												
ROW required for each segment												
1 Dense Urban	Acre	\$	2,786,321					\$ -				\$ -
2 Urban	Acre	\$	1,371,510					\$ -				\$ -
3 Dense Suburban	Acre	\$	908,134					\$ -				\$ -
4 Suburban	Acre	\$	208,418					\$ -				\$ -
5 Undeveloped	Acre	\$	3,642					\$ -				\$ -
ROW required for Temp. Construction Easement												
1 Dense Urban	Acre							\$ -				\$ -
2 Urban	Acre							\$ -				\$ -
3 Dense Suburban	Acre							\$ -				\$ -
4 Suburban	Acre							\$ -				\$ -
5 Undeveloped	Acre							\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities												
6 Dense Urban	Acre	\$	2,786,321					\$ -				\$ -
7 Urban	Acre	\$	1,371,510					\$ -				\$ -
8 Dense Suburban	Acre	\$	908,134					\$ -				\$ -
9 Suburban	Acre	\$	208,418					\$ -				\$ -
10 Undeveloped	Acre	\$	3,642					\$ -				\$ -
Environmental Mitigation = 3% Line Costs								\$ 5,493,414				\$ 6,441,201
System Elements												
1 Signalling (ATC)	Mile	\$	2,070,000				1.17	\$ 2,430,682			1.17	\$ 2,430,682
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000				1.17	\$ 634,091			1.17	\$ 634,091
3 Wayside Protection System	Mile	\$	108,000				1.17	\$ 126,818			1.17	\$ 126,818
Electrification Items												
1 Traction Power supply	Mile	\$	1,170,000				1.17	\$ 1,373,864			1.17	\$ 1,373,864
2 Traction Power Distribution	Mile	\$	1,485,000				1.17	\$ 1,743,750			1.17	\$ 1,743,750
Program Implementation Costs (per screening)								\$ 194,916,427				\$ 227,457,096
Program Implementation Costs								\$ 49,703,689				\$ 58,001,559
Contingencies (per screening) (25%)								\$ 48,729,107				\$ 56,864,274
Subtotal								\$ 293,349,223				\$ 342,322,929
Subtotal (Rounded)								\$ 293,000,000				\$ 342,000,000

Note: unit price for three-track is interpolated from double and four tracks

Subsection 3	3A (0.8 miles)			3B (1.9 miles)			3C & 3D (1.8 miles)			3E (0.5 miles)
	At Grade	Open Trench	Covered Trench/ Tunnel	Aerial Viaduct	Open Trench	Covered Trench/ Tunnel	Aerial Viaduct	Open Trench	Covered Trench/ Tunnel	At Grade
Capital Cost (\$2009 in Millions) does not include ROW	\$12	<del>\$132</del> <u>90</u>	\$345	<del>\$194</del> <u>245</u>	<del>\$433</del> <u>413</u>	\$937	<del>\$265</del> <u>313</u>	<del>\$425</del> <u>405</u>	\$894	\$30
Acquisition Cost of Permanent ROW	Highest	Medium	Lowest	Medium	Medium	Lowest	Medium	Medium	Lowest	Highest
Notes:				1. Caltrain Broadway and Burlingame Stations	1. Caltrain Broadway and Burlingame Stations	1. Caltrain Broadway and Burlingame Stations	1. Caltrain San Mateo Station; 2. 1st, 2nd, 3rd, 4th, 5th, and 9th Aves to be partially lowered.	1. Caltrain San Mateo Station	1. Caltrain San Mateo Station	1. Caltrain Hayward Park Station

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (4 tracks)				Open Trench (2 tracks)				Covered Trench (4 tracks)			
Subsection 3			Base: 2009 (3rd Quarter)		A				A				A			
					Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Single Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Single Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Freight Double Track - At Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Freight Single Track - At Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
1	Double Track Section - Total															
	Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -			0.00	\$ -			0.00	\$ -
2	Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
3	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
4	Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
Three Track - Total																
5	Three Track Section - At Grade	Mile	\$	3,150,336			0	\$ -			0	\$ -			0	\$ -
6	Three Track Section - On structure	Mile	\$	7,050,240			0	\$ -			0	\$ -			0	\$ -
7	Three Track Section - In Tunnel or Subway	Mile	\$	7,050,240			0	\$ -			0	\$ -			0	\$ -
8	Three Track Section - In Trench	Mile	\$	7,050,240			0	\$ -			0	\$ -			0	\$ -
Four Track Section - Total																
	Four-track Section - At Grade	Mile	\$	4,200,448			0.76	\$ 3,182,158			0.00	\$ -			0.00	\$ -
	Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$ -			0.00	\$ -			0.00	\$ -
	Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$ -			0.00	\$ -			0.76	\$ 7,121,455
	Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$ -			0.76	\$ 7,121,455			0.00	\$ -
Single Track - Total																
5	Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -			0	\$ -			0	\$ -
6	Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
8	Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
9	Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$ -			0	\$ -			0	\$ -
10	Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																
1	Site Preparation - Undeveloped	Acre	\$	9,216			10.10	\$ 93,091			10.10	\$ 93,091			10.10	\$ 93,091
2	Total Cut	CY	\$	6.00			0.00	\$ -			162962.96	\$ 977,778			162962.96	\$ 977,778
3	Total Fill	CY	\$	6.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
4	Borrow	CY	\$	13.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
5	Spoil	CY	\$	13.00			0.00	\$ -			162962.96	\$ 2,118,519			162962.96	\$ 2,118,519
6	Landscape erosion Control	Acre	\$	6,144			0.00	\$ -			10.10	\$ 62,061			0.00	\$ -
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.76	\$ 109,382			0.76	\$ 109,382			0.00	\$ -
8	Special Drainage Facilities	5% Earthwork						\$ 10,124				\$ 168,041				\$ 159,469
Structures, Tunnels, Walls																
1	Standard Structure (2 tracks)	Mile	\$	34,972,672			0	\$ -			0	\$ -			0	\$ -
	Standard Structure (4 tracks)	Mile	\$	52,459,008												
2	High Structure	Mile	\$	40,424,448				\$ -				\$ -				\$ -
3	Long Span Structure	Mile	\$	61,919,232				\$ -				\$ -				\$ -
4	Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -				\$ -				\$ -
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -				\$ -				\$ -
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -				\$ -				\$ -
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -				\$ -				\$ -
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -				\$ -				\$ -
9	Double Track Drill & Blast	Mile	\$	146,887,680			0	\$ -			0	\$ -			0	\$ -
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -				\$ -				\$ -
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -				\$ -				\$ -
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				\$ -				\$ -				\$ -
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -				\$ -				\$ -
12	Crossovers	ea	\$	442,368				\$ -				\$ -				\$ -
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0	\$ -			0	\$ -			0	\$ -
14	Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0	\$ -			0.76	\$ 43,578,958			0	\$ -
	Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336												
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -				\$ -				\$ -
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856												
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			0	\$ -			0	\$ -			0.76	\$ 8,976,291
17	Retaining Walls	Mile	\$	8,613,888			0	\$ -			0.00	\$ -			0	\$ -
18	Containment Walls	Mile	\$	5,907,456				\$ -			0.00	\$ -				\$ -
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -				\$ -				\$ -
	Four Track Drill & Blast	Mile	\$	293,775,360				\$ -				\$ -				\$ -
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -				\$ -				\$ -
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$ -				\$ -				\$ -
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$ -				\$ -				\$ -
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -			0.00	\$ -			0.76	\$ 198,857,697

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (4 tracks)				Open Trench (2 tracks)				Covered Trench (4 tracks)				
Subsection 3				Base: 2009 (3rd Quarter)	A				A				A				
					Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles		
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles		
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 905 + 00	End: 945 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Grade Separations																	
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)					ea	\$	13,284,352				\$	-			\$	-	
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)					ea	\$	19,926,528				\$	-			\$	-	
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)					ea	\$	2,759,680				\$	-			\$	-	
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)					ea	\$	2,029,568				\$	-			\$	-	
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)					ea	\$	3,563,520				\$	-			\$	-	
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)					ea	\$	3,593,216				\$	-			\$	-	
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)					ea	\$	2,850,816				\$	-			\$	-	
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)					ea	\$	3,171,328				\$	-			\$	-	
7 Street Bridging HSR Trench					ea	\$	1,398,784				\$	-			\$	-	
8 Minor Crossing Closures					ea	\$	87,040	1	\$	87,040		\$	-			\$	-
Building Items																	
1 Intermediate Passenger Stations					Each	\$	-				\$	-			\$	-	
2 Terminal Passenger Stations					Each	\$	-				\$	-			\$	-	
Caltrain Passenger Station - At-Grade					Each	\$	15,000,000				\$	-			\$	-	
Caltrain Passenger Station - On Structure					Each	\$	15,000,000				\$	-			\$	-	
Caltrain Passenger Station - In Tunnel or Subway					Each	\$	15,000,000				\$	-			\$	-	
Caltrain Passenger Station - In Trench					Each	\$	15,000,000				\$	-			\$	-	
3 Maintenance Facility					Each	\$	123,921,884				\$	-			\$	-	
4 Parking - Structures					space	\$	-				\$	-			\$	-	
5 Parking - At Grade					space	\$	-				\$	-			\$	-	
Rail & Utility Relocation																	
1 Single Track Relocation (Temporary)					Mile	\$	2,000,896				\$	-			\$	-	
2 Single Track Relocation (Permanent)					Mile	\$	2,000,896				\$	-			\$	-	
3 Single Track Removal					Mile	\$	130,048				\$	-			\$	-	
4 Major Utility Relocations - Dense Urban					Mile	\$	1,548,288				\$	-			\$	-	
5 Major Utility Relocations - Urban					Mile	\$	1,084,416				\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban					Mile	\$	775,168				\$	-			\$	-	
7 Major Utility Relocations - Suburban					Mile	\$	464,896				\$	-			\$	-	
8 Major Utility Relocations - Undeveloped					Mile	\$	30,720				\$	-			\$	-	
ROW (Not Included)																	
ROW required for each segment																	
1 Dense Urban					Acre	\$	2,786,321				\$	-			\$	-	
2 Urban					Acre	\$	1,371,510				\$	-			\$	-	
3 Dense Suburban					Acre	\$	908,134				\$	-			\$	-	
4 Suburban					Acre	\$	208,418				\$	-			\$	-	
5 Undeveloped					Acre	\$	3,642				\$	-			\$	-	
ROW required for Temp. Construction Easement																	
1 Dense Urban					Acre						\$	-			\$	-	
2 Urban					Acre						\$	-			\$	-	
3 Dense Suburban					Acre						\$	-			\$	-	
4 Suburban					Acre						\$	-			\$	-	
5 Undeveloped					Acre						\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																	
6 Dense Urban					Acre	\$	2,786,321				\$	-			\$	-	
7 Urban					Acre	\$	1,371,510				\$	-			\$	-	
8 Dense Suburban					Acre	\$	908,134				\$	-			\$	-	
9 Suburban					Acre	\$	208,418				\$	-			\$	-	
10 Undeveloped					Acre	\$	3,642				\$	-			\$	-	
Environmental Mitigation = 3% Line Costs								\$	104,454		\$	1,626,878			\$	6,549,129	
System Elements																	
1 Signaling (ATC)					Mile	\$	2,070,000	0.76	\$	1,568,182	0.76	\$	1,568,182	0.76	\$	1,568,182	
2 Communications (w/ Fiber Optic Backbone)					Mile	\$	540,000	0.76	\$	409,091	0.76	\$	409,091	0.76	\$	409,091	
3 Wayside Protection System					Mile	\$	108,000	0.76	\$	81,818	0.76	\$	81,818	0.76	\$	81,818	
Electrification Items																	
1 Traction Power supply					Mile	\$	1,170,000	0.76	\$	886,364	0.76	\$	886,364	0.76	\$	886,364	
2 Traction Power Distribution					Mile	\$	1,485,000	0.76	\$	1,125,000	0.76	\$	1,125,000	0.76	\$	1,125,000	
Subtotal								\$	7,656,702		\$	59,926,616			\$	228,923,883	
Program Implementation Costs (per screening)								\$	1,952,459		\$	15,281,287			\$	58,375,590	
Program Implementation Costs																	
Contingencies (per screening) (25%)								\$	1,914,176		\$	14,981,654			\$	57,230,971	
Subtotal								\$	11,523,337		\$	90,189,557			\$	344,530,443	
Subtotal (Rounded)								\$	12,000,000		\$	90,000,000			\$	345,000,000	

COST ELEMENTS		UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 3			Base: 2009 (3rd Quarter)	B				B				B			
				Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles	
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Section - Total						0.00	\$ -			0.00	\$ -			0.00	\$ -
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total															
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320			1.89	\$ 17,803,636			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00	\$ -			0.00	\$ -			1.89	\$ 17,803,636
Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$ -			1.89	\$ 17,803,636			0.00	\$ -
Single Track - Total															
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
Freight Double Track - At Grade						0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -			0	\$ -			0	\$ -
Earthwork Items															
1 Site Preparation - Undeveloped	Acre	\$	9,216			25.25	\$ 232,727			25.25	\$ 232,727			25.25	\$ 232,727
2 Total Cut	CY	\$	6.00			0	\$ -			1629629.63	\$ 9,777,778			1629629.63	\$ 9,777,778
3 Total Fill	CY	\$	6.00			0	\$ -			0.00	\$ -			814814.81	\$ 4,888,889
4 Borrow	CY	\$	13.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00			0.00	\$ -			1629629.63	\$ 21,185,185			814814.81	\$ 10,592,593
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$ -			25.25	\$ 155,152			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -			1.89	\$ 273,455			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork						\$ 11,636				\$ 1,581,215				\$ 1,274,599
Structures, Tunnels, Walls															
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$ -			0	\$ -			0	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008			1.89	\$ 99,354,182								
2 High Structure	Mile	\$	40,424,448				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			0.01	\$ 697,344			0.01	\$ 697,344			0.01	\$ 697,344
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$ -			0	\$ -			0	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312												
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896												
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -				\$ -				\$ -
12 Crossovers	ea	\$	442,368				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$ -			0	\$ -			0	\$ -
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336							1.89	\$ 163,421,091				
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856												
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$ -			0.00	\$ -			1.89	\$ 22,440,727
17 Retaining Walls	Mile	\$	8,613,888			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456				\$ -			0.00	\$ -				\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624												
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792												
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -			0.00	\$ -			1.89	\$ 497,144,242
Grade Separations															
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -				\$ -				\$ -
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$ -			8	\$ 11,190,272			0	\$ -



COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 3			Base: 2009 (3rd Quarter)	B				B				B				
				Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles		
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)				Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles		
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 945 + 00	End: 1045 + 00	1.89 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
8	Minor Crossing Closures	ea	\$	87,040			\$	-			\$	-	0	\$	-	
	Building Items															
1	Intermediate Passenger Stations	Each	\$	-			\$	-			\$	-		\$	-	
2	Terminal Passenger Stations	Each	\$	-			\$	-			\$	-		\$	-	
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000			\$	-			\$	-		\$	-	
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000		2	\$	30,000,000			\$	-		\$	-	
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000			\$	-			\$	-		\$	-	
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000			\$	-		2	\$	30,000,000		2	\$	30,000,000
3	Maintenance Facility	Each	\$	123,921,884			\$	-			\$	-		\$	-	
4	Parking - Structures	space	\$	-			\$	-			\$	-		\$	-	
5	Parking - At Grade	space	\$	-			\$	-			\$	-		\$	-	
	Rail & Utility Relocation															
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896			\$	-			\$	-		\$	-	
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896			\$	-			\$	-		\$	-	
3	Single Track Removal	Mile	\$	130,048			\$	-			\$	-		\$	-	
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			\$	-			\$	-		\$	-	
5	Major Utility Relocations - Urban	Mile	\$	1,084,416			\$	-			\$	-		\$	-	
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168			\$	-			\$	-		\$	-	
7	Major Utility Relocations - Suburban	Mile	\$	464,896			\$	-			\$	-		\$	-	
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720			\$	-			\$	-		\$	-	
	ROW (Not Included)															
	ROW required for each segment															
1	Dense Urban	Acre	\$	2,786,321			\$	-			\$	-		\$	-	
2	Urban	Acre	\$	1,371,510			\$	-			\$	-		\$	-	
3	Dense Suburban	Acre	\$	908,134			\$	-			\$	-		\$	-	
4	Suburban	Acre	\$	208,418			\$	-			\$	-		\$	-	
5	Undeveloped	Acre	\$	3,642			\$	-			\$	-		\$	-	
	ROW required for Temp. Construction Easement															
1	Dense Urban	Acre					\$	-			\$	-		\$	-	
2	Urban	Acre					\$	-			\$	-		\$	-	
3	Dense Suburban	Acre					\$	-			\$	-		\$	-	
4	Suburban	Acre					\$	-			\$	-		\$	-	
5	Undeveloped	Acre					\$	-			\$	-		\$	-	
	Right-of-Way Required for Stations, Maintenance & Parking Facilities															
6	Dense Urban	Acre	\$	2,786,321			\$	-			\$	-		\$	-	
7	Urban	Acre	\$	1,371,510			\$	-			\$	-		\$	-	
8	Dense Suburban	Acre	\$	908,134			\$	-			\$	-		\$	-	
9	Suburban	Acre	\$	208,418			\$	-			\$	-		\$	-	
10	Undeveloped	Acre	\$	3,642			\$	-			\$	-		\$	-	
	Environmental Mitigation = 3% Line Costs						\$	4,442,986			\$	7,689,536			\$	17,845,576
	System Elements															
1	Signaling (ATC)	Mile	\$	2,070,000		1.89	\$	3,920,455		1.89	\$	3,920,455		1.89	\$	3,920,455
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000		1.89	\$	1,022,727		1.89	\$	1,022,727		1.89	\$	1,022,727
3	Wayside Protection System	Mile	\$	108,000		1.89	\$	204,545		1.89	\$	204,545		1.89	\$	204,545
	Electrification Items															
1	Traction Power supply	Mile	\$	1,170,000		1.89	\$	2,215,909		1.89	\$	2,215,909		1.89	\$	2,215,909
2	Traction Power Distribution	Mile	\$	1,485,000		1.89	\$	2,812,500		1.89	\$	2,812,500		1.89	\$	2,812,500
	Program Implementation Costs (per screening)						\$	162,718,648			\$	274,183,526			\$	622,874,248
	Program Implementation Costs						\$	41,493,255			\$	69,916,799			\$	158,832,933
	Contingencies (per screening) (25%)						\$	40,679,662			\$	68,545,882			\$	155,718,562
	Subtotal						\$	244,891,565			\$	412,646,207			\$	937,425,744
	Subtotal (Rounded)						\$	245,000,000			\$	413,000,000			\$	937,000,000

COST ELEMENTS				UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 3					Base: 2009 (3rd Quarter)	C				C				C			
						Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles	
Subsection Details								Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)						Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles	
Four Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Section - Total																	
1 Double Track Section - At Grade						Mile	\$	2,100,224	0.00	\$	-	0.00	\$	-	0.00	\$	-
2 Double Track Section - On Structure						Mile	\$	4,700,160	0.00	\$	-	0.00	\$	-	0.00	\$	-
3 Double Track Section - In Tunnel or Subway						Mile	\$	4,700,160	0.00	\$	-	0.00	\$	-	0.00	\$	-
4 Double Track Section - In Trench						Mile	\$	4,700,160	0.00	\$	-	0.00	\$	-	0.00	\$	-
Four Track Section - Total																	
Four-track Section - At Grade						Mile	\$	4,200,448	0.00	\$	-	0.00	\$	-	0.00	\$	-
Four-Track Section - On Structure						Mile	\$	9,400,320	0.80	\$	7,477,527	0.00	\$	-	0.00	\$	-
Four-Track Section - In Tunnel or Subway						Mile	\$	9,400,320	0.00	\$	-	0.00	\$	-	0.80	\$	7,477,527
Four-Track Section - In Trench						Mile	\$	9,400,320	0.00	\$	-	0.80	\$	7,477,527	0.00	\$	-
Single Track - Total																	
5 Single Track Section - At Grade						Mile	\$	1,549,312	0.00	\$	-	0	\$	-	0	\$	-
6 Single Track Section - On structure						Mile	\$	2,350,080	0.00	\$	-	0	\$	-	0	\$	-
7 Single Track Section - In Tunnel or Subway						Mile	\$	2,350,080	0.00	\$	-	0	\$	-	0	\$	-
8 Single Track Section - In Trench						Mile	\$	2,350,080	0.00	\$	-	0	\$	-	0	\$	-
9 Freight Double Track - At Grade						Mile	\$	2,839,552	0.00	\$	-	0	\$	-	0	\$	-
10 Freight Single Track - At Grade						Mile	\$	1,549,312	0.00	\$	-	0	\$	-	0	\$	-
Earthwork Items																	
1 Site Preparation - Undeveloped						Acre	\$	9,216	10.61	\$	97,745	10.61	\$	97,745	10.61	\$	97,745
2 Total Cut						CY	\$	6.00	0.00	\$	-	684444.44	\$	4,106,667	684444.44	\$	4,106,667
3 Total Fill						CY	\$	6.00	0.00	\$	-	0.00	\$	-	342222.22	\$	2,053,333
4 Borrow						CY	\$	13.00	0.00	\$	-	0.00	\$	-	0.00	\$	-
5 Spoil						CY	\$	13.00	0.00	\$	-	684444.44	\$	8,897,778	342222.22	\$	4,448,889
6 Landscape erosion Control						Acre	\$	6,144	0.00	\$	-	10.61	\$	65,164	0.00	\$	-
7 Security Fencing (Both sides of ROW)						Mile	\$	144,384	0.00	\$	-	0.80	\$	114,851	0.00	\$	-
8 Special Drainage Facilities						5% Earthwork		\$	4,887				\$	664,110		\$	535,332
Structures, Tunnels, Walls																	
1 Standard Structure (2 tracks)						Mile	\$	34,972,672	0.00	\$	-	0	\$	-	0	\$	-
Standard Structure (4 tracks)						Mile	\$	52,459,008	0.80	\$	41,728,756						
2 High Structure						Mile	\$	40,424,448		\$	-		\$	-		\$	-
3 Long Span Structure						Mile	\$	61,919,232		\$	-		\$	-		\$	-
4 Waterway Crossing - Primary						Mile	\$	85,342,208		\$	-		\$	-		\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)						Mile	\$	92,049,408		\$	-	0.01	\$	697,344	0.01	\$	697,344
6 Twin Single Track Drill&Blast (<6 Miles)						Mile	\$	142,731,264		\$	-		\$	-		\$	-
7 Twin Single Track TBM (<6 Miles)						Mile	\$	106,637,312		\$	-		\$	-		\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)						Mile	\$	176,720,896		\$	-		\$	-		\$	-
9 Double Track Drill & Blast						Mile	\$	146,887,680	0.00	\$	-	0	\$	-	0	\$	-
10 Double Track Mined (Soft Soil)						Mile	\$	79,200,000		\$	-		\$	-		\$	-
Double Track TBM (<6 Miles)						Mile	\$	106,637,312									
Double Track TBM w/3rd Tube (>6 Miles)						Mile	\$	176,720,896									
11 Seismic Chamber (Drill & Blast/Mined)						ea	\$	126,205,952		\$	-		\$	-		\$	-
12 Crossovers						ea	\$	442,368		\$	-		\$	-		\$	-
13 Cut & Cover Double Track Tunnel						Mile	\$	131,246,080	0.00	\$	-	0	\$	-	0	\$	-
14 Trench Long (2 tracks) (1000 + ft)						Mile	\$	57,524,224	0.00	\$	-	0.00	\$	-	0.00	\$	-
Trench Long (4 tracks) (1000 + ft)						Mile	\$	86,286,336				0.80	\$	68,636,858			
15 Trench Short (2 tracks) (<1000 ft)						Mile	\$	78,843,904		\$	-		\$	-		\$	-
Trench Short (4 tracks) (<1000 ft)						Mile	\$	118,265,856									
16 Mechanical & Electrical for Tunnels						Mile	\$	11,848,704		\$	-	0.00	\$	-	0.80	\$	9,425,105
17 Retaining Walls						Mile	\$	8,613,888	0.00	\$	-	0.00	\$	-	0.00	\$	-
18 Containment Walls						Mile	\$	5,907,456		\$	-	0.00	\$	-		\$	-
19 Single Track Cut and Cover Subway						Mile	\$	131,246,080		\$	-		\$	-		\$	-
Four Track Drill & Blast						Mile	\$	293,775,360		\$	-		\$	-		\$	-
Four Track Mined (Soft Soil)						Mile	\$	158,400,000		\$	-		\$	-		\$	-
Four Track TBM (<6 Miles)						Mile	\$	213,274,624									
Four Track TBM w/3rd Tube (>6 Miles)						Mile	\$	353,441,792									
Four Track Cut & Cover Tunnel						Mile	\$	262,492,160	0.00	\$	-	0.00	\$	-	0.80	\$	208,800,582
Grade Separations																	
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)						ea	\$	13,284,352		\$	-		\$	-		\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)						ea	\$	19,926,528		\$	-		\$	-		\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)						ea	\$	2,759,680		\$	-		\$	-		\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)						ea	\$	2,029,568		\$	-		\$	-		\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)						ea	\$	3,563,520		\$	-		\$	-		\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)						ea	\$	3,593,216		\$	-		\$	-		\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)						ea	\$	2,850,816		\$	-		\$	-		\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)						ea	\$	3,171,328		\$	-		\$	-		\$	-
7 Street Bridging HSR Trench						ea	\$	1,398,784		\$	-	6	\$	8,392,704		\$	-

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 3			Base: 2009 (3rd Quarter)	C				C				C				
				Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles		
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)				Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles		
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 1045 + 00	End: 1087 + 00	0.80 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -	
Building Items																
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -	
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - On Structure	Each	\$15,000,000			1	\$ 15,000,000				\$ -				\$ -	
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -			1	\$ 15,000,000			1	\$ 15,000,000	
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -	
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -	
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -	
Rail & Utility Relocation																
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -	
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -	
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -	
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -	
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -	
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -	
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -	
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -	
ROW (Not Included)																
ROW required for each segment																
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -	
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -	
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -	
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -	
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -	
ROW required for Temp. Construction Easement																
1	Dense Urban	Acre					\$ -				\$ -				\$ -	
2	Urban	Acre					\$ -				\$ -				\$ -	
3	Dense Suburban	Acre					\$ -				\$ -				\$ -	
4	Suburban	Acre					\$ -				\$ -				\$ -	
5	Undeveloped	Acre					\$ -				\$ -				\$ -	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -	
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -	
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -	
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -	
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -	
	Environmental Mitigation = 3% Line Costs						\$ 1,929,267				\$ 3,424,522				\$ 7,579,276	
System Elements																
1	Signaling (ATC)	Mile	\$ 2,070,000			0.80	\$ 1,646,591			0.80	\$ 1,646,591			0.80	\$ 1,646,591	
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			0.80	\$ 429,545			0.80	\$ 429,545			0.80	\$ 429,545	
3	Wayside Protection System	Mile	\$ 108,000			0.80	\$ 85,909			0.80	\$ 85,909			0.80	\$ 85,909	
Electrification Items																
1	Traction Power supply	Mile	\$ 1,170,000			0.80	\$ 930,682			0.80	\$ 930,682			0.80	\$ 930,682	
2	Traction Power Distribution	Mile	\$ 1,485,000			0.80	\$ 1,181,250			0.80	\$ 1,181,250			0.80	\$ 1,181,250	
							\$ 70,512,161				\$ 121,849,248				\$ 264,495,778	
	Program Implementation Costs (per screening)						\$ 17,980,601				\$ 31,071,558				\$ 67,446,423	
	Program Implementation Costs															
	Contingencies (per screening) (25%)						\$ 17,628,040				\$ 30,462,312				\$ 66,123,944	
	Subtotal						\$ 106,120,802				\$ 183,383,118				\$ 398,066,145	
	Subtotal (Rounded)						\$ 106,000,000				\$ 183,000,000				\$ 398,000,000	

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)					
Subsection 3			Base: 2009 (3rd Quarter)	D				D				D						
				Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Elevated (Mile)				Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles				
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
1	Double Track Section - Total					0.00	\$	-			0.00	\$	-			0.00	\$	-
2	Double Track Section - At Grade	Mile	\$	2,100,224		0.00	\$	-			0.00	\$	-			0.00	\$	-
3	Double Track Section - On Structure	Mile	\$	4,700,160		0.00	\$	-			0.00	\$	-			0.00	\$	-
2	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160		0.00	\$	-			0.00	\$	-			0.00	\$	-
4	Double Track Section - In Trench	Mile	\$	4,700,160		0.00	\$	-			0.00	\$	-			0.00	\$	-
Four Track Section - Total																		
Four-track Section - At Grade				Mile	\$	4,200,448		0.00	\$	-		0.00	\$	-		0.00	\$	-
Four-Track Section - On Structure				Mile	\$	9,400,320		1.00	\$	9,435,927		0.00	\$	-		0.00	\$	-
Four-Track Section - In Tunnel or Subway				Mile	\$	9,400,320		0.00	\$	-		0.00	\$	-		1.00	\$	9,435,927
Four-Track Section - In Trench				Mile	\$	9,400,320		0.00	\$	-		1.00	\$	9,435,927		0.00	\$	-
Single Track - Total																		
5	Single Track Section - At Grade	Mile	\$	1,549,312		0.00	\$	-			0	\$	-			0	\$	-
6	Single Track Section - On structure	Mile	\$	2,350,080		0.00	\$	-			0	\$	-			0	\$	-
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080		0.00	\$	-			0	\$	-			0	\$	-
8	Single Track Section - In Trench	Mile	\$	2,350,080		0.00	\$	-			0	\$	-			0	\$	-
Freight Double Track - At Grade				Mile	\$	2,839,552		0.00	\$	-		0	\$	-		0	\$	-
10	Freight Single Track - At Grade	Mile	\$	1,549,312		0.00	\$	-			0	\$	-			0	\$	-
Earthwork Items																		
1	Site Preparation - Undeveloped	Acre	\$	9,216		13.38	\$	123,345			13.38	\$	123,345			13.38	\$	123,345
2	Total Cut	CY	\$	6.00		0.00	\$	-			863703.70	\$	5,182,222			863703.70	\$	5,182,222
3	Total Fill	CY	\$	6.00		0.00	\$	-			0.00	\$	-			431851.85	\$	2,591,111
4	Borrow	CY	\$	13.00		0.00	\$	-			0.00	\$	-			0.00	\$	-
5	Spoil	CY	\$	13.00		0.00	\$	-			863703.70	\$	11,228,148			431851.85	\$	5,614,074
6	Landscape erosion Control	Acre	\$	6,144		0.00	\$	-			13.38	\$	82,230			0.00	\$	-
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384		0.00	\$	-			1.00	\$	144,931			0.00	\$	-
8	Special Drainage Facilities	5% Earthwork					\$	6,167				\$	838,044				\$	675,538
Structures, Tunnels, Walls																		
1	Standard Structure (2 tracks)	Mile	\$	34,972,672		0.00	\$	-			0	\$	-			0	\$	-
	Standard Structure (4 tracks)	Mile	\$	52,459,008		1.00	\$	52,657,716										
2	High Structure	Mile	\$	40,424,448			\$	-				\$	-				\$	-
3	Long Span Structure	Mile	\$	61,919,232			\$	-				\$	-				\$	-
4	Waterway Crossing - Primary	Mile	\$	85,342,208			\$	-				\$	-				\$	-
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			\$	-			0.01	\$	697,344			0.01	\$	697,344
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264			\$	-				\$	-				\$	-
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312			\$	-				\$	-				\$	-
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896			\$	-				\$	-				\$	-
9	Double Track Drill & Blast	Mile	\$	146,887,680		0.00	\$	-			0	\$	-			0	\$	-
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000			\$	-				\$	-				\$	-
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312														
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896														
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952			\$	-				\$	-				\$	-
12	Crossovers	ea	\$	442,368			\$	-				\$	-				\$	-
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080		0.00	\$	-			0	\$	-			0	\$	-
14	Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224		0.00	\$	-			0.00	\$	-			0.00	\$	-
	Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336							1.00	\$	86,613,178					
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904			\$	-				\$	-				\$	-
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856														
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			\$	-			0.00	\$	-			1.00	\$	11,893,585
17	Retaining Walls	Mile	\$	8,613,888		0.00	\$	-			0.00	\$	-			0.00	\$	-
18	Containment Walls	Mile	\$	5,907,456		0.00	\$	-			0.00	\$	-			0.00	\$	-
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080			\$	-				\$	-				\$	-
	Four Track Drill & Blast	Mile	\$	293,775,360			\$	-				\$	-				\$	-
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000			\$	-				\$	-				\$	-
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624														
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792														
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160		0.00	\$	-			0.00	\$	-			1.00	\$	263,486,448
Grade Separations																		
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352			\$	-				\$	-				\$	-
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528		2	\$	39,853,056				\$	-				\$	-
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680		4	\$	11,038,720				\$	-				\$	-
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568			\$	-				\$	-				\$	-
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			\$	-				\$	-				\$	-
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216			\$	-				\$	-				\$	-
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816			\$	-				\$	-				\$	-
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328			\$	-				\$	-				\$	-

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)					
Subsection 3			Base: 2009 (3rd Quarter)	D				D				D						
				Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles				
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Elevated (Mile)				Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles				
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 1087 + 00	End: 1140 + 00	1.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-		6	\$	8,392,704			\$	-		
8 Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-			\$	-		
Building Items																		
1 Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-		
2 Terminal Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-		
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-			\$	-		
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			1	\$	15,000,000			\$	-			\$	-		
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-			\$	-		
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-		1	\$	15,000,000		1	\$	15,000,000		
3 Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-			\$	-		
4 Parking - Structures	space	\$	-				\$	-			\$	-			\$	-		
5 Parking - At Grade	space	\$	-				\$	-			\$	-			\$	-		
Rail & Utility Relocation																		
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-			\$	-		
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-			\$	-		
3 Single Track Removal	Mile	\$	130,048				\$	-			\$	-			\$	-		
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-			\$	-		
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-			\$	-		
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-			\$	-		
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-			\$	-		
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-			\$	-		
ROW (Not Included)																		
ROW required for each segment																		
1 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-		
2 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-		
3 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-		
4 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-		
5 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-		
ROW required for Temp. Construction Easement																		
1 Dense Urban	Acre						\$	-			\$	-			\$	-		
2 Urban	Acre						\$	-			\$	-			\$	-		
3 Dense Suburban	Acre						\$	-			\$	-			\$	-		
4 Suburban	Acre						\$	-			\$	-			\$	-		
5 Undeveloped	Acre						\$	-			\$	-			\$	-		
Right-of-Way Required for Stations, Maintenance & Parking Facilities																		
6 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-		
7 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-		
8 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-		
9 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-		
10 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-		
Environmental Mitigation = 3% Line Costs							\$	3,843,448			\$	4,132,142			\$	9,440,988		
System Elements																		
1 Signaling (ATC)	Mile	\$	2,070,000			1.00	\$	2,077,841			1.00	\$	2,077,841		1.00	\$	2,077,841	
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.00	\$	542,045			1.00	\$	542,045		1.00	\$	542,045	
3 Wayside Protection System	Mile	\$	108,000			1.00	\$	108,409			1.00	\$	108,409		1.00	\$	108,409	
Electrification Items																		
1 Traction Power supply	Mile	\$	1,170,000			1.00	\$	1,174,432			1.00	\$	1,174,432		1.00	\$	1,174,432	
2 Traction Power Distribution	Mile	\$	1,485,000			1.00	\$	1,490,625			1.00	\$	1,490,625		1.00	\$	1,490,625	
Program Implementation Costs (per screening)							\$	137,351,733			\$	147,263,569			\$	329,533,936		
Program Implementation Costs							\$	35,024,692			\$	37,552,210			\$	84,031,154		
Contingencies (per screening) (25%)							\$	34,337,933			\$	36,815,892			\$	82,383,484		
Subtotal							\$	206,714,358				\$	221,631,671				\$	495,948,573
Subtotal (Rounded)							\$	207,000,000				\$	222,000,000				\$	496,000,000

COST ELEMENTS		UNIT	UNIT PRICE	At-Grade			
Subsection 3			Base: 2009 (3rd Quarter)	E			
				Start: 1140 + 00	End: 1164 + 00	0.45 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 1140 + 00	End: 1164 + 00	0.45 Miles	
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Section - Total							
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -
Four Track Section - Total							
Four-track Section - At Grade	Mile	\$	4,200,448			0.45	\$ 1,909,295
Four-Track Section - On Structure	Mile	\$	9,400,320			0.00	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$ -
Single Track - Total							
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -
Freight Double Track - At Grade		Mile	\$ 2,839,552			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -
Earthwork Items							
1 Site Preparation - Undeveloped	Acre	\$	9,216			0.00	\$ -
2 Total Cut	CY	\$	6.00			0.00	\$ -
3 Total Fill	CY	\$	6.00			0.00	\$ -
4 Borrow	CY	\$	13.00			0.00	\$ -
5 Spoil	CY	\$	13.00			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.45	\$ 65,629
8 Special Drainage Facilities	5% Earthwork						\$ 3,281
Structures, Tunnels, Walls							
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				
2 High Structure	Mile	\$	40,424,448				\$ -
3 Long Span Structure	Mile	\$	61,919,232				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680			0	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -
12 Crossovers	ea	\$	442,368				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0	\$ -
14 Trench Long (2 tracks) (1000 + ft)	Mile	\$	57,524,224			0	\$ -
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336				
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856				
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			0	\$ -
17 Retaining Walls	Mile	\$	8,613,888			0	\$ -
18 Containment Walls	Mile	\$	5,907,456			0	\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -
Grade Separations							
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -



COST ELEMENTS		UNIT	UNIT PRICE	At-Grade		
Subsection 3			Base: 2009 (3rd Quarter)	E		
				Start: 1140 + 00	End: 1164 + 00	0.45 Miles
Subsection Details					Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 1140 + 00	End: 1164 + 00	0.45 Miles
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles
7 Street Bridging HSR Trench	ea	\$	1,398,784			\$ -
8 Minor Crossing Closures	ea	\$	87,040			\$ -
Building Items						
1 Intermediate Passenger Stations	Each	\$	-			\$ -
2 Terminal Passenger Stations	Each	\$	-			\$ -
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000		1	\$ 15,000,000
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			\$ -
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000			\$ -
Caltrain Passenger Station - In Trench	Each	\$	15,000,000			\$ -
3 Maintenance Facility	Each	\$	123,921,884			\$ -
4 Parking - Structures	space	\$	-			\$ -
5 Parking - At Grade	space	\$	-			\$ -
Rail & Utility Relocation						
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896			\$ -
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896			\$ -
3 Single Track Removal	Mile	\$	130,048			\$ -
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			\$ -
5 Major Utility Relocations - Urban	Mile	\$	1,084,416			\$ -
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168			\$ -
7 Major Utility Relocations - Suburban	Mile	\$	464,896			\$ -
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720			\$ -
ROW (Not Included)						
ROW required for each segment						
1 Dense Urban	Acre	\$	2,786,321			\$ -
2 Urban	Acre	\$	1,371,510			\$ -
3 Dense Suburban	Acre	\$	908,134			\$ -
4 Suburban	Acre	\$	208,418			\$ -
5 Undeveloped	Acre	\$	3,642			\$ -
ROW required for Temp. Construction Easement						
1 Dense Urban	Acre					\$ -
2 Urban	Acre					\$ -
3 Dense Suburban	Acre					\$ -
4 Suburban	Acre					\$ -
5 Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities						
6 Dense Urban	Acre	\$	2,786,321			\$ -
7 Urban	Acre	\$	1,371,510			\$ -
8 Dense Suburban	Acre	\$	908,134			\$ -
9 Suburban	Acre	\$	208,418			\$ -
10 Undeveloped	Acre	\$	3,642			\$ -
Environmental Mitigation = 3% Line Costs						\$ 509,346
System Elements						
1 Signaling (ATC)	Mile	\$	2,070,000		0.45	\$ 940,909
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000		0.45	\$ 245,455
3 Wayside Protection System	Mile	\$	108,000		0.45	\$ 49,091
Electrification Items						
1 Traction Power supply	Mile	\$	1,170,000		0.45	\$ 531,818
2 Traction Power Distribution	Mile	\$	1,485,000		0.45	\$ 675,000
Subtotal						\$ 19,929,824
Program Implementation Costs (per screening)						\$ 5,082,105
Program Implementation Costs						
Contingencies (per screening) (25%)						\$ 4,982,456
Subtotal						\$ 29,994,385
Subtotal (Rounded)						\$ 30,000,000

Subsection 4	4A (0.7 miles)	4B1 (1.3 miles)	4B2 (3.4 miles)				
	Berm	Berm	Aerial Viaduct	At Grade	Open Trench/Tunnel	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$40	\$105	<del>\$326</del> <u>418</u> (4 tracks)	\$124 (4 tracks) \$28 (2 tracks)	<del>\$682</del> <u>644</u> (4 tracks)	\$1,637 (4 tracks)	\$1,502 (2 tracks)
Acquisition Cost of Permanent ROW	Medium	Medium	Medium	Highest	Lowest	Lowest	Lowest
Notes:		1. Caltrain Hillsdale Station. 2. New 28th Ave extension	4 tracks - 1. Raise Ralston Ave, Harbor Blvd, F St, and Holly St to smooth profile; 2. Caltrain Belmont and San Carlos stations;	4 tracks - 1. Caltrain Belmont and San Carlos stations. 2 tracks - 1. Electrification only. 2. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - 1. Raise Ralston Ave, Harbor Blvd, F St, and Holly St to smooth profile; 2. Caltrain Belmont and San Carlos stations;	4 tracks - 1. Raise Ralston Ave, Harbor Blvd, F St, and Holly St to smooth profile; 2. Caltrain Belmont and San Carlos stations;	2 tracks - 1. This option would leave existing Caltrain unchanged because subsection already grade separated. 2. <i>Must be combined with 2 track at grade option.</i>

Subsection 4	4C (1.6 miles)				4D (0.6 miles)				
	Aerial Viaduct	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)	Aerial Viaduct (HST Only)	At Grade (Caltrain Only)	Open Trench (HST Only)	Covered Trench/Tunnel (HST Only)	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	<del>\$157 200</del> (4 tracks); <del>\$111 145</del> (2 tracks)	<del>\$325 308</del> (4 tracks)	\$765 (4 tracks)	\$336 (2 tracks)	<del>\$30 63</del> (2 tracks)	\$7 (2 tracks)	<del>\$105 72</del> (2 tracks)	\$152 (2 tracks)	\$121 (2 tracks)
Acquisition Cost of Permanent ROW	Medium	Medium	Lowest	Lowest	Medium	Highest	Medium	Lowest	Lowest
Notes:	4 tracks - 1. Caltrain Redwood City Station. 2. Potential HST Redwood City station (costs not included). 2 tracks - 1. Caltrain Redwood City Station. 2. Potential HST Redwood City station (costs not included). 3. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - 1. Caltrain Redwood City Station. 2. Potential HST Redwood City station (costs not included). 3. Raise Jefferson Ave to smooth profile.	4 tracks - 1. Caltrain Redwood City Station. 2. Potential HST Redwood City station (costs not included). 3. Raise Jefferson Ave to smooth profile.	2 tracks - 1. No potential HST Redwood City station. 2. Two tracks only. 3. <i>Must be combined with 2 track aerial viaduct option.</i>	2 tracks - 1. Convert Woodside Road overpass to underpass. 2. Two tracks only. 3. <i>Must be combined with 2 track at grade option.</i>	2 tracks - 1. Existing 4-track alignment. 2. <i>Must be combined with 2 track aerial viaduct or trench or tunnel option.</i>	2 tracks - 1. <i>Must be combined with 2 track at grade option.</i>	2 tracks - 1. <i>Must be combined with 2 track at grade option.</i>	2 tracks - 1. <i>Must be combined with 2 track aerial viaduct option.</i>

COST ELEMENTS		UNIT	UNIT PRICE	Berm (4 tracks)			
Subsection 4			Base: 2009 (3rd Quarter)	A			
				Start: 1164 + 00	End: 1200 + 00	0.68 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 1164 + 00	End: 1182 + 00	0.34 Miles	
Four Track Elevated (Mile)				Start: 1182 + 00	End: 1200 + 00	0.34 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Section - Total							
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00 \$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00 \$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00 \$	-
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00 \$	-
Four Track Section - Total							
Four-track Section - At Grade	Mile	\$	4,200,448			0.34 \$	1,431,971
Four-Track Section - On Structure	Mile	\$	9,400,320			0.34 \$	3,204,655
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00 \$	-
Four-Track Section - In Trench	Mile	\$	9,400,320			0.00 \$	-
Single Track - Total							
5 Single Track Section - At Grade	Mile	\$	1,549,312			0.00 \$	-
6 Single Track Section - On structure	Mile	\$	2,350,080			0.00 \$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0.00 \$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080			0.00 \$	-
Freight Double Track - At Grade		Mile	\$ 2,839,552			0.00 \$	-
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0.00 \$	-
Earthwork Items							
1 Site Preparation - Undeveloped	Acre	\$	9,216			12.88 \$	118,702
2 Total Cut	CY	\$	6.00			0.00 \$	-
3 Total Fill	CY	\$	6.00			133333.33 \$	800,000
4 Borrow	CY	\$	13.00			133333.33 \$	1,733,333
5 Spoil	CY	\$	13.00			0.00 \$	-
6 Landscape erosion Control	Acre	\$	6,144			12.88 \$	79,135
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.68 \$	98,444
8 Special Drainage Facilities	5% Earthwork					\$	141,481
Structures, Tunnels, Walls							
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.34 \$	11,922,502
2 High Structure	Mile	\$	40,424,448			\$	-
3 Long Span Structure	Mile	\$	61,919,232			\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208			\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264			\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312			\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896			\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00 \$	-
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000			\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952			\$	-
12 Crossovers	ea	\$	442,368			\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00 \$	-
14 Trench Long (2 tracks) (<1000 ft)	Mile	\$	57,524,224			0.00 \$	-
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336				
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904			\$	-
Trench Short (4 tracks) (1000 + ft)	Mile	\$	118,265,856				
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			\$	-
17 Retaining Walls	Mile	\$	8,613,888			0.34 \$	2,936,553
18 Containment Walls	Mile	\$	5,907,456			\$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080			\$	-
Four Track Drill & Blast	Mile	\$	293,775,360			\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000			\$	-
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00 \$	-
Grade Separations							
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352			\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528			0 \$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568			\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216			\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816			\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328			\$	-
7 Street Bridging HSR Trench	ea	\$	1,398,784			\$	-
8 Minor Crossing Closures	ea	\$	87,040			\$	-

COST ELEMENTS		UNIT	UNIT PRICE	Berm (4 tracks)			
Subsection 4		Base: 2009 (3rd Quarter)		A			
				Start: 1164 + 00	End: 1200 + 00	0.68 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 1164 + 00	End: 1182 + 00	0.34 Miles	
Four Track Elevated (Mile)				Start: 1182 + 00	End: 1200 + 00	0.34 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Building Items							
1	Intermediate Passenger Stations	Each	\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -
3	Maintenance Facility	Each	\$ 123,921,884				\$ -
4	Parking - Structures	space	\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -
Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -
ROW (Not Included)							
ROW required for each segment							
1	Dense Urban	Acre	\$ 2,786,321				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -
4	Suburban	Acre	\$ 208,418				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -
ROW required for Temp. Construction Easement							\$ -
1	Dense Urban	Acre					\$ -
2	Urban	Acre					\$ -
3	Dense Suburban	Acre					\$ -
4	Suburban	Acre					\$ -
5	Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$ 2,786,321				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -
9	Suburban	Acre	\$ 208,418				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -
Environmental Mitigation = 3% Line Costs							\$ 674,003
System Elements							
1	Signaling (ATC)	Mile	\$ 2,070,000			0.68 Miles	\$ 1,411,364
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			0.68 Miles	\$ 368,182
3	Wayside Protection System	Mile	\$ 108,000			0.68 Miles	\$ 73,636
Electrification Items							
1	Traction Power supply	Mile	\$ 1,170,000			0.68 Miles	\$ 797,727
2	Traction Power Distribution	Mile	\$ 1,485,000			0.68 Miles	\$ 1,012,500
	Subtotal						\$ 26,804,187
Program Implementation Costs (per screening)							\$ 6,835,068
Program Implementation Costs							
Contingencies (per screening) (25%)							\$ 6,701,047
Subtotal							\$ 40,340,301
Subtotal (Rounded)							\$ 40,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Berm (4 tracks)				Aerial Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)			
Subsection 4				Base: 2009 (3rd Quarter)	B1				B2				B2				B2			
					Start: 1200 + 00	Start: 1270 + 00	1.33 Miles		Start: 1270 + 00	Start: 1450 + 00	3.41 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles	
							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Subsection Details					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 1200 + 00	End: 1235 + 00	0.66 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 1235 + 00	End: 1270 + 00	0.66 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.66	\$ 2,784,388			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320				0.66	\$ 6,231,273			3.41	\$ 32,046,545			0.00	\$ -			3.41	\$ 32,046,545
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Freight Double Track - At Grade																				
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Freight Single Track - At Grade																				
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Total Cut	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Total Fill	CY	\$	6.00				259259.26	\$ 1,555,556			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Borrow	CY	\$	13.00				259259.26	\$ 3,370,370			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.66	\$ 95,709			0.00	\$ -			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork							\$ 251,082				\$ -				\$ -				\$ -
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.66	\$ 23,182,642			0.00	\$ -			0.00	\$ -			\$	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008								3.41	\$ 178,837,527								\$ -
2 High Structure	Mile	\$	40,424,448					\$ -				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232					\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$ -				\$ -				\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	792,000,000				\$	\$ -			\$	\$ -			\$	\$ -			\$	\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	\$ -			\$	\$ -			\$	\$ -			\$	\$ -
12 Crossovers	ea	\$	442,368				\$	\$ -			\$	\$ -			\$	\$ -			\$	\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (<1000 ft)	Mile	\$	57,524,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336																	
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (1000 + ft)	Mile	\$	118,265,856																	
Mechanical & Electrical for Tunnels																				
16 Retaining Walls	Mile	\$	11,848,704					\$ -				\$ -				\$ -				\$ -
17 Retaining Walls	Mile	\$	8,613,888				0.66	\$ 5,709,964			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456					\$ -				\$ -				\$ -				\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	1,584,000,000					\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				0	\$ -			0	\$ -			0	\$ -			0	\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				1	\$ 2,759,680			4	\$ 11,038,720				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$ -				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -				\$ -				\$ -



COST ELEMENTS			UNIT	UNIT PRICE	Berm (4 tracks)		Aerial Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)									
Subsection 4				Base: 2009 (3rd Quarter)	B1		B2				B2				B2									
					Start: 1200 + 00	Start: 1270 + 00	1.33 Miles		Start: 1270 + 00	Start: 1450 + 00	3.41 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles					
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost				
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles					
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 1200 + 00	End: 1235 + 00	0.66 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles					
Four Track Elevated (Mile)					Start: 1235 + 00	End: 1270 + 00	0.66 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles					
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-				\$	-			\$	-			\$	-			
8 Minor Crossing Closures	ea	\$	87,040				\$	-				\$	-			\$	-			\$	-			
Building Items																								
1 Intermediate Passenger Stations	Each	\$	-				\$	-				\$	-			\$	-			\$	-			
2 Terminal Passenger Stations	Each	\$	-				\$	-				\$	-			\$	-			\$	-			
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-			
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			1	\$	15,000,000			2	\$	30,000,000			\$	-		2	\$	30,000,000			
2 Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-			
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-			
3 Maintenance Facility	Each	\$	123,921,884				\$	-				\$	-			\$	-			\$	-			
4 Parking - Structures	space	\$	-				\$	-				\$	-			\$	-			\$	-			
5 Parking - At Grade	space	\$	-				\$	-				\$	-			\$	-			\$	-			
Rail & Utility Relocation																								
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-				\$	-			\$	-			\$	-			
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-				\$	-			\$	-			\$	-			
3 Single Track Removal	Mile	\$	130,048				\$	-				\$	-			\$	-			\$	-			
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-				\$	-			\$	-			\$	-			
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-			\$	-			\$	-			
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-			\$	-			\$	-			
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-			\$	-			\$	-			
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-			\$	-			\$	-			
ROW (Not Included)																								
ROW required for each segment																								
1 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-			\$	-			\$	-			
2 Urban	Acre	\$	1,371,510				\$	-				\$	-			\$	-			\$	-			
3 Dense Suburban	Acre	\$	908,134				\$	-				\$	-			\$	-			\$	-			
4 Suburban	Acre	\$	208,418				\$	-				\$	-			\$	-			\$	-			
5 Undeveloped	Acre	\$	3,642				\$	-				\$	-			\$	-			\$	-			
ROW required for Temp. Construction Easement																								
1 Dense Urban	Acre						\$	-				B				\$	-			B				
2 Urban	Acre						\$	-				\$	-			\$	-			\$	-			
3 Dense Suburban	Acre						\$	-				\$	-			\$	-			\$	-			
4 Suburban	Acre						\$	-				\$	-			\$	-			\$	-			
5 Undeveloped	Acre						\$	-				\$	-			\$	-			\$	-			
Right-of-Way Required for Stations, Maintenance & Parking Facilities																								
6 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-			\$	-			\$	-			
7 Urban	Acre	\$	1,371,510				\$	-				\$	-			\$	-			\$	-			
8 Dense Suburban	Acre	\$	908,134				\$	-				\$	-			\$	-			\$	-			
9 Suburban	Acre	\$	208,418				\$	-				\$	-			\$	-			\$	-			
10 Undeveloped	Acre	\$	3,642				\$	-				\$	-			\$	-			\$	-			
Environmental Mitigation = 3% Line Costs								\$	1,828,220				\$	7,557,684				\$	-		\$	1,861,396		
System Elements																								
1 Signaling (ATC)	Mile	\$	2,070,000			1.33	\$	2,744,318			3.41	\$	7,056,818			3.41	\$	7,056,818		3.41	\$	7,056,818		
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.33	\$	715,909			3.41	\$	1,840,909			3.41	\$	1,840,909		3.41	\$	1,840,909		
3 Wayside Protection System	Mile	\$	108,000			1.33	\$	143,182			3.41	\$	368,182			3.41	\$	368,182		3.41	\$	368,182		
Electrification Items																								
1 Traction Power supply	Mile	\$	1,170,000			1.33	\$	1,551,136			3.41	\$	3,988,636			3.41	\$	3,988,636		3.41	\$	3,988,636		
2 Traction Power Distribution	Mile	\$	1,485,000			1.33	\$	1,968,750			3.41	\$	5,062,500			3.41	\$	5,062,500		3.41	\$	5,062,500		
Subtotal								\$	69,892,179				\$	277,797,522				\$	18,317,045			\$	82,224,987	
Program Implementation Costs (per screening)								\$	17,822,506				\$	70,838,368				\$	4,670,847			\$	20,967,372	
Program Implementation Costs																								
Contingencies (per screening) (25%)								\$	17,473,045				\$	69,449,380				\$	4,579,261			\$	20,556,247	
Subtotal								\$	105,187,729				\$	418,085,271				\$	27,567,153				\$	123,748,606
Subtotal (Rounded)								\$	105,000,000				\$	418,000,000				\$	28,000,000				\$	124,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench				Tunnel (HST only)					
Subsection 4				Base: 2009 (3rd Quarter)	B2				B2				B2					
					Start: 1270 + 00	Start: 1450 + 00	3.41 Miles		Start: 1270 + 00	Start: 1450 + 00	3.41 Miles		Start: 1270 + 00	Start: 1450 + 00	3.41 Miles			
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)					Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
1	Double Track Section - Total						0.00	\$	-			0.00	\$	-		0.00	\$	-
2	Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$	-			0.00	\$	-		0.00	\$	-
3	Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
4	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		3.41	\$	16,023,273
4	Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-		0.00	\$	-
	Four Track Section - Total																	
	Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$	-			0.00	\$	-		0.00	\$	-
	Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$	-			0.00	\$	-		0.00	\$	-
	Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$	-			3.41	\$	32,046,545				
	Four-Track Section - In Trench	Mile	\$	9,400,320			3.41	\$	32,046,545			0	\$	-		0	\$	-
	Single Track - Total																	
5	Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-		0	\$	-
6	Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
8	Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-			0	\$	-		0	\$	-
9	Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-			0	\$	-		0	\$	-
10	Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-		0	\$	-
	Earthwork Items																	
1	Site Preparation - Undeveloped	Acre	\$	9,216			45.45	\$	418,909			45.45	\$	418,909		0.00	\$	-
2	Total Cut	CY	\$	6.00			1466666.67	\$	8,800,000			1466666.67	\$	8,800,000		0.00	\$	-
3	Total Fill	CY	\$	6.00			0.00	\$	-				\$	-		0.00	\$	-
4	Borrow	CY	\$	13.00			0.00	\$	-			0.00	\$	-		0.00	\$	-
5	Spoil	CY	\$	13.00			1466666.67	\$	19,066,667			1466666.67	\$	19,066,667		0.00	\$	-
6	Landscape erosion Control	Acre	\$	6,144			45.45	\$	279,273			45.45	\$	279,273		0.00	\$	-
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384			3.41	\$	492,218			0.00	\$	-		0.00	\$	-
8	Special Drainage Facilities	5% Earthwork						\$	1,452,853				\$	1,428,242			\$	-
	Structures, Tunnels, Walls																	
1	Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$	-			0.00	\$	-		0.00	\$	-
	Standard Structure (4 tracks)	Mile	\$	52,459,008														
2	High Structure	Mile	\$	40,424,448				\$	-				\$	-			\$	-
3	Long Span Structure	Mile	\$	61,919,232				\$	-				\$	-			\$	-
4	Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-				\$	-			\$	-
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-				\$	-			\$	-
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-				\$	-			\$	-
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-			\$	-
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-				\$	-			\$	-
9	Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$	-			0.00	\$	-		0.00	\$	-
10	Double Track Mined (Soft Soil)	Mile	\$	792,000,000				\$	-				\$	-		0.76	\$	601,200,000
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312												2.65	\$	282,588,877
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896														
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-				\$	-			\$	-
12	Crossovers	ea	\$	442,368				\$	-				\$	-			\$	-
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-			0.00	\$	-		0.00	\$	-
14	Trench Long (2 tracks) (<1000 ft)	Mile	\$	57,524,224			0.00	\$	-			0.00	\$	-		0.00	\$	-
	Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336			3.41	\$	294,157,964									
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-				\$	-			\$	-
	Trench Short (4 tracks) (1000 + ft)	Mile	\$	118,265,856														
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$	-			3.41	\$	40,393,309		3.41	\$	40,393,309
17	Retaining Walls	Mile	\$	8,613,888			0.00	\$	-			0.00	\$	-		0.00	\$	-
18	Containment Walls	Mile	\$	5,907,456			0.00	\$	-				\$	-			\$	-
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-				\$	-			\$	-
	Four Track Drill & Blast	Mile	\$	293,775,360				\$	-				\$	-			\$	-
	Four Track Mined (Soft Soil)	Mile	\$	1,584,000,000				\$	-				\$	-				
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624												0.00	\$	-
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792													\$	-
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-			3.41	\$	894,859,636		0.00	\$	-
	Grade Separations																	
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-				\$	-			\$	-
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-				\$	-			\$	-
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			4	\$	11,038,720			4	\$	11,038,720		4	\$	11,038,720
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-				\$	-			\$	-
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$	-				\$	-			\$	-
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-				\$	-			\$	-
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-				\$	-			\$	-
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-				\$	-			\$	-

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench				Tunnel (HST only)				
Subsection 4			Base: 2009 (3rd Quarter)	B2				B2				B2					
				Start: 1270 + 00	Start: 1450 + 00	3.41 Miles		Start: 1270 + 00	Start: 1450 + 00	3.41 Miles		Start: 1270 + 00	Start: 1450 + 00	3.41 Miles			
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles			
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)				Start: 1270 + 00	End: 1450 + 00	3.41 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
7 Street Bridging HSR Trench	ea	\$	1,398,784			0	\$	-			0	\$	-		0	\$	-
8 Minor Crossing Closures	ea	\$	87,040				\$	-			0	\$	-		0	\$	-
Building Items																	
1 Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-	
2 Terminal Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-			\$	-	
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-			\$	-	
2 Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-		0	\$	-	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000			2	\$	30,000,000			2	\$	30,000,000		0	\$	-
3 Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-			\$	-	
4 Parking - Structures	space	\$	-				\$	-			\$	-			\$	-	
5 Parking - At Grade	space	\$	-				\$	-			\$	-			\$	-	
Rail & Utility Relocation																	
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-			\$	-	
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-			\$	-	
3 Single Track Removal	Mile	\$	130,048				\$	-			\$	-			\$	-	
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-			\$	-	
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-			\$	-	
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-			\$	-	
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-			\$	-	
ROW (Not Included)																	
ROW required for each segment																	
1 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-	
2 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-	
3 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-	
4 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-	
5 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement																	
1 Dense Urban	Acre						\$	-			\$	-			\$	-	
2 Urban	Acre						\$	-			\$	-			\$	-	
3 Dense Suburban	Acre						\$	-			\$	-			\$	-	
4 Suburban	Acre						\$	-			\$	-			\$	-	
5 Undeveloped	Acre						\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																	
6 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-	
7 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-	
8 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-	
9 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-	
10 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs							\$	11,932,594			\$	31,149,939			\$	28,537,325	
System Elements																	
1 Signaling (ATC)	Mile	\$	2,070,000			3.41	\$	7,056,818			3.41	\$	7,056,818		3.41	\$	7,056,818
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			3.41	\$	1,840,909			3.41	\$	1,840,909		3.41	\$	1,840,909
3 Wayside Protection System	Mile	\$	108,000			3.41	\$	368,182			3.41	\$	368,182		3.41	\$	368,182
Electrification Items																	
1 Traction Power supply	Mile	\$	1,170,000			3.41	\$	3,988,636			3.41	\$	3,988,636		3.41	\$	3,988,636
2 Traction Power Distribution	Mile	\$	1,485,000			3.41	\$	5,062,500			3.41	\$	5,062,500		3.41	\$	5,062,500
Subtotal							\$	428,002,789			\$	1,087,798,286			\$	998,098,549	
Program Implementation Costs (per screening)							\$	109,140,711			\$	277,388,563			\$	254,515,130	
Program Implementation Costs																	
Contingencies (per screening) (25%)							\$	107,000,697			\$	271,949,572			\$	249,524,637	
Subtotal							\$	644,144,197			\$	1,637,136,421			\$	1,502,138,317	
Subtotal (Rounded)							\$	644,000,000			\$	1,637,000,000			\$	1,502,000,000	

COST ELEMENTS			UNIT	UNIT PRICE	Aerial Viaduct (4 Tracks)				Aerial Viaduct (2 Tracks)				Open Trench (4 tracks)				Covered Trench			
Subsection 4				Base: 2009 (3rd Quarter)	C				C				C				C			
					Start: 1450 + 00	Start: 1533 + 00	1.57 Miles		Start: 1450 + 00	Start: 1533 + 00	1.57 Miles		Start: 1450 + 00	Start: 1533 + 00	1.57 Miles		Start: 1450 + 00	Start: 1533 + 00	1.57 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 1450 + 00	End: 1533 + 00	1.57 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 1450 + 00	End: 1533 + 00	1.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1450 + 00	End: 1533 + 00	1.57 Miles	
Four Track Trench (Mile)					Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 1450 + 00	End: 1533 + 00	1.57 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$ -			1.57	\$ 7,388,509			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320				1.57	\$ 14,777,018			0.00	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0	\$ -			1.57	\$ 14,777,018
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			1.57	\$ 14,777,018			0	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Freight Double Track - At Grade							0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				0.00	\$ -			0.00	\$ -			20.96	\$ 193,164			20.96	\$ 193,164
2 Total Cut	CY	\$	6.00				0.00	\$ -			0.00	\$ -			676296.30	\$ 4,057,778			676296.30	\$ 4,057,778
3 Total Fill	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -				\$ -
4 Borrow	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				0.00	\$ -			0.00	\$ -			676296.30	\$ 8,791,852			676296.30	\$ 8,791,852
6 Landscape erosion Control	Acre	\$	6,144				0.00	\$ -			0.00	\$ -			20.96	\$ 128,776			20.96	\$ 128,776
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00	\$ -			0.00	\$ -			1.57	\$ 226,967			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork							\$ -				\$ -				\$ 669,927				\$ 658,578
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00	\$ -			1.57	\$ 54,975,981			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				1.57	\$ 82,463,971												
2 High Structure	Mile	\$	40,424,448					\$ -				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232					\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$ -				\$ -				\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000					\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$ -				\$ -				\$ -				\$ -
12 Crossovers	ea	\$	442,368					\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (<1000 ft)	Mile	\$	57,524,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336												1.57	\$ 135,639,505				
Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904																	
15 Trench Short (4 tracks) (1000 + ft)	Mile	\$	118,265,856					\$ -				\$ -				\$ -				\$ -
Mechanical & Electrical for Tunnels																				
16 Retaining Walls	Mile	\$	8,613,888				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456					\$ -				\$ -			0.00	\$ -				\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.57	\$ 412,629,721
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				0	\$ -			0	\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				3	\$ 8,279,040			3	\$ 8,279,040			0	\$ -			0	\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$ -				\$ -			3	\$ 10,690,560			3	\$ 10,690,560
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -				\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Aerial Viaduct (4 Tracks)				Aerial Viaduct (2 Tracks)				Open Trench (4 tracks)				Covered Trench							
Subsection 4			Base: 2009 (3rd Quarter)		C				C				C				C							
					Start: 1450 + 00	Start: 1533 + 00	1.57 Miles		Start: 1450 + 00	Start: 1533 + 00	1.57 Miles		Start: 1450 + 00	Start: 1533 + 00	1.57 Miles		Start: 1450 + 00	Start: 1533 + 00	1.57 Miles					
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost				
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles					
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 1450 + 00	End: 1533 + 00	1.57 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles					
Four Track Elevated (Mile)					Start: 1450 + 00	End: 1533 + 00	1.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1450 + 00	End: 1533 + 00	1.57 Miles					
Four Track Trench (Mile)					Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 1450 + 00	End: 1533 + 00	1.57 Miles		Start: 0 + 00		0.00 Miles					
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-				\$	-	0	\$	-			0	\$	-			
8 Minor Crossing Closures	ea	\$	87,040				\$	-				\$	-		\$	-			0	\$	-			
Building Items																								
1 Intermediate Passenger Stations	Each	\$	-				\$	-				\$	-		\$	-			\$	-				
2 Terminal Passenger Stations	Each	\$	-				\$	-				\$	-		\$	-			\$	-				
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-				\$	-		\$	-			\$	-				
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			1	\$	15,000,000			1	\$	15,000,000		\$	-			\$	-				
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-				\$	-		\$	-			\$	-				
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-				\$	-	1	\$	15,000,000			1	\$	15,000,000			
3 Maintenance Facility	Each	\$	123,921,884				\$	-				\$	-		\$	-			\$	-				
4 Parking - Structures	space	\$	-				\$	-				\$	-		\$	-			\$	-				
5 Parking - At Grade	space	\$	-				\$	-				\$	-		\$	-			\$	-				
Rail & Utility Relocation																								
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-				\$	-		\$	-			\$	-				
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-				\$	-		\$	-			\$	-				
3 Single Track Removal	Mile	\$	130,048				\$	-				\$	-		\$	-			\$	-				
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-				\$	-		\$	-			\$	-				
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-		\$	-			\$	-				
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-		\$	-			\$	-				
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-		\$	-			\$	-				
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-		\$	-			\$	-				
ROW (Not Included)																								
ROW required for each segment																								
1 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-		\$	-			\$	-				
2 Urban	Acre	\$	1,371,510				\$	-				\$	-		\$	-			\$	-				
3 Dense Suburban	Acre	\$	908,134				\$	-				\$	-		\$	-			\$	-				
4 Suburban	Acre	\$	208,418				\$	-				\$	-		\$	-			\$	-				
5 Undeveloped	Acre	\$	3,642				\$	-				\$	-		\$	-			\$	-				
ROW required for Temp. Construction Easement								\$	-			\$	-		\$	-			\$	-				
1 Dense Urban	Acre						B				B				\$	-			\$	-				
2 Urban	Acre						\$	-				\$	-		\$	-			\$	-				
3 Dense Suburban	Acre						\$	-				\$	-		\$	-			\$	-				
4 Suburban	Acre						\$	-				\$	-		\$	-			\$	-				
5 Undeveloped	Acre						\$	-				\$	-		\$	-			\$	-				
Right-of-Way Required for Stations, Maintenance & Parking Facilities																								
6 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-		\$	-			\$	-				
7 Urban	Acre	\$	1,371,510				\$	-				\$	-		\$	-			\$	-				
8 Dense Suburban	Acre	\$	908,134				\$	-				\$	-		\$	-			\$	-				
9 Suburban	Acre	\$	208,418				\$	-				\$	-		\$	-			\$	-				
10 Undeveloped	Acre	\$	3,642				\$	-				\$	-		\$	-			\$	-				
Environmental Mitigation = 3% Line Costs								\$	3,615,601				\$	2,569,306				\$	5,705,266		\$	14,566,598		
System Elements																								
1 Signaling (ATC)	Mile	\$	2,070,000			1.57	\$	3,253,977			1.57	\$	3,253,977			1.57	\$	3,253,977			1.57	\$	3,253,977	
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.57	\$	848,864			1.57	\$	848,864			1.57	\$	848,864			1.57	\$	848,864	
3 Wayside Protection System	Mile	\$	108,000			1.57	\$	169,773			1.57	\$	169,773			1.57	\$	169,773			1.57	\$	169,773	
Electrification Items																								
1 Traction Power supply	Mile	\$	1,170,000			1.57	\$	1,839,205			1.57	\$	1,839,205			1.57	\$	1,839,205			1.57	\$	1,839,205	
2 Traction Power Distribution	Mile	\$	1,485,000			1.57	\$	2,334,375			1.57	\$	2,334,375			1.57	\$	2,334,375			1.57	\$	2,334,375	
Program Implementation Costs (per screening)								\$	132,581,823				\$	96,659,029				\$	204,327,006				\$	508,566,041
Program Implementation Costs								\$	33,808,365				\$	24,648,052				\$	52,103,387				\$	129,684,341
Contingencies (per screening) (25%)								\$	33,145,456				\$	24,164,757				\$	51,081,752				\$	127,141,510
Subtotal							\$	199,535,644				\$	145,471,838				\$	307,512,145				\$	765,391,892	
Subtotal (Rounded)							\$	200,000,000				\$	145,000,000				\$	308,000,000				\$	765,000,000	

COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (HST only)			
Subsection 4			Base: 2009 (3rd Quarter)	C			
				Start: 1450 + 00	Start: 1533 + 00	1.57 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 1450 + 00	End: 1533 + 00	1.57 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
	Double Track Section - Total						
1	Double Track Section - At Grade	Mile	\$ 2,100,224			0.00	\$ -
2	Double Track Section - On Structure	Mile	\$ 4,700,160			0.00	\$ -
3	Double Track Section - In Tunnel or Subway	Mile	\$ 4,700,160			1.57	\$ 7,388,509
4	Double Track Section - In Trench	Mile	\$ 4,700,160			0.00	\$ -
	Four Track Section - Total						
	Four-track Section - At Grade	Mile	\$ 4,200,448			0.00	\$ -
	Four-Track Section - On Structure	Mile	\$ 9,400,320			0	\$ -
	Four-Track Section - In Tunnel or Subway	Mile	\$ 9,400,320			0	\$ -
	Four-Track Section - In Trench	Mile	\$ 9,400,320			0	\$ -
	Single Track - Total						
5	Single Track Section - At Grade	Mile	\$ 1,549,312			0	\$ -
6	Single Track Section - On structure	Mile	\$ 2,350,080			0	\$ -
7	Single Track Section - In Tunnel or Subway	Mile	\$ 2,350,080			0	\$ -
8	Single Track Section - In Trench	Mile	\$ 2,350,080			0	\$ -
9	Freight Double Track - At Grade	Mile	\$ 2,839,552			0	\$ -
10	Freight Single Track - At Grade	Mile	\$ 1,549,312			0	\$ -
	Earthwork Items						
1	Site Preparation - Undeveloped	Acre	\$ 9,216			0.00	\$ -
2	Total Cut	CY	\$ 6.00			0.00	\$ -
3	Total Fill	CY	\$ 6.00			0.00	\$ -
4	Borrow	CY	\$ 13.00			0.00	\$ -
5	Spoil	CY	\$ 13.00			0.00	\$ -
6	Landscape erosion Control	Acre	\$ 6,144			0.00	\$ -
7	Security Fencing (Both sides of ROW)	Mile	\$ 144,384			0.00	\$ -
8	Special Drainage Facilities	5% Earthwork				\$	\$ -
	Structures, Tunnels, Walls						
1	Standard Structure (2 tracks)	Mile	\$ 34,972,672			0.00	\$ -
	Standard Structure (4 tracks)	Mile	\$ 52,459,008				\$ -
2	High Structure	Mile	\$ 40,424,448				\$ -
3	Long Span Structure	Mile	\$ 61,919,232				\$ -
4	Waterway Crossing - Primary	Mile	\$ 85,342,208				\$ -
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$ 92,049,408				\$ -
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$ 142,731,264				\$ -
7	Twin Single Track TBM (<6 Miles)	Mile	\$ 106,637,312			0.00	\$ -
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$ 176,720,896			0.00	\$ -
9	Double Track Drill & Blast	Mile	\$ 146,887,680			0.00	\$ -
10	Double Track Mined (Soft Soil)	Mile	\$ 79,200,000			0.00	\$ -
	Double Track TBM (<6 Miles)	Mile	\$ 106,637,312			1.57	\$ 167,630,623
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$ 176,720,896				
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$ 126,205,952				\$ -
12	Crossovers	ea	\$ 442,368				\$ -
13	Cut & Cover Double Track Tunnel	Mile	\$ 131,246,080			0.00	\$ -
14	Trench Long (2 tracks) (<1000 ft)	Mile	\$ 57,524,224			0.00	\$ -
	Trench Long (4 tracks) (1000 + ft)	Mile	\$ 86,286,336				
	Trench Short (2 tracks) (<1000 ft)	Mile	\$ 78,843,904				
15	Trench Short (4 tracks) (1000 + ft)	Mile	\$ 118,265,856				\$ -
16	Mechanical & Electrical for Tunnels	Mile	\$ 11,848,704			1.57	\$ 18,625,804
17	Retaining Walls	Mile	\$ 8,613,888			0.00	\$ -
18	Containment Walls	Mile	\$ 5,907,456				\$ -
19	Single Track Cut and Cover Subway	Mile	\$ 131,246,080				\$ -
	Four Track Drill & Blast	Mile	\$ 293,775,360				\$ -
	Four Track Mined (Soft Soil)	Mile	\$ 158,400,000			0.00	\$ -
	Four Track TBM (<6 Miles)	Mile	\$ 213,274,624			0.00	\$ -
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$ 353,441,792				\$ -
	Four Track Cut & Cover Tunnel	Mile	\$ 262,492,160			0.00	\$ -
	Grade Separations						
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$ 13,284,352				\$ -
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$ 19,926,528				\$ -
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$ 2,759,680			0	\$ -
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$ 2,029,568				\$ -
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$ 3,563,520			0	\$ -
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$ 3,593,216				\$ -
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$ 2,850,816				\$ -
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$ 3,171,328				\$ -



COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (HST only)			
Subsection 4			Base: 2009 (3rd Quarter)	C			
				Start: 1450 + 00	Start: 1533 + 00	1.57 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 1450 + 00	End: 1533 + 00	1.57 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
7	Street Bridging HSR Trench	ea	\$ 1,398,784			0	\$ -
8	Minor Crossing Closures	ea	\$ 87,040			0	\$ -
Building Items							
1	Intermediate Passenger Stations	Each	\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000			1	\$ 15,000,000
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -
3	Maintenance Facility	Each	\$ 123,921,884				\$ -
4	Parking - Structures	space	\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -
Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -
ROW (Not Included)							
ROW required for each segment							
1	Dense Urban	Acre	\$ 2,786,321				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -
4	Suburban	Acre	\$ 208,418				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -
ROW required for Temp. Construction Easement							\$ -
1	Dense Urban	Acre					\$ -
2	Urban	Acre					\$ -
3	Dense Suburban	Acre					\$ -
4	Suburban	Acre					\$ -
5	Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$ 2,786,321				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -
9	Suburban	Acre	\$ 208,418				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -
Environmental Mitigation = 3% Line Costs							\$ 6,259,348
System Elements							
1	Signaling (ATC)	Mile	\$ 2,070,000			1.57	\$ 3,253,977
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.57	\$ 848,864
3	Wayside Protection System	Mile	\$ 108,000			1.57	\$ 169,773
Electrification Items							
1	Traction Power supply	Mile	\$ 1,170,000			1.57	\$ 1,839,205
2	Traction Power Distribution	Mile	\$ 1,485,000			1.57	\$ 2,334,375
							\$ 223,350,477
	Program Implementation Costs (per screening)						\$ 56,954,372
	Program Implementation Costs						
	Contingencies (per screening) (25%)						\$ 55,837,619
Subtotal							\$ 336,142,468
Subtotal (Rounded)							\$ 336,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Aerial Viaduct (2 tracks) (HST only)				At-Grade (2 tracks) (CALTRAIN only)				Open Trench (2 tracks) (HST only)				Covered Trench (HST only)					
Subsection 4			Base: 2009 (3rd Quarter)	D				D				D				D						
				Start: 1533 + 00	Start: 1565 + 00	0.61 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 1533 + 00	Start: 1565 + 00	0.61 Miles		Start: 1533 + 00	Start: 1565 + 00	0.61 Miles				
Subsection Details					Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost				
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles				
Double Track Elevated (Mile)				Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00	End: 1565 + 00	0.61 Miles
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00		0.00 Miles
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles				
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Trench (Mile)				Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles
1 Double Track Section - Total						0.00	\$	-		0.61	\$	1,272,863		0.00	\$	-		0.00	\$	-		
2 Double Track Section - On Structure	Mile	\$	2,100,224			0.61	\$	2,848,582		0.00	\$	-		0.00	\$	-		0.00	\$	-		
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.61	\$	2,848,582		
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-		0.00	\$	-		0.61	\$	2,848,582		0.00	\$	-		
Four Track Section - Total																						
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-		
Four-Track Section - On Structure	Mile	\$	9,400,320			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00	\$	-		0.00	\$	-		0	\$	-		0.00	\$	-		
Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$	-		0.00	\$	-		0.00	\$	-		0	\$	-		
Single Track - Total																						
5 Single Track Section - At Grade	Mile	\$	1,549,312			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
6 Single Track Section - On structure	Mile	\$	2,350,080			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
8 Single Track Section - In Trench	Mile	\$	2,350,080			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0.00	\$	-		0.00	\$	-		0	\$	-		0	\$	-		
Earthwork Items																						
1 Site Preparation - Undeveloped	Acre	\$	9,216			0.00	\$	-		0.00	\$	-		8.08	\$	74,473		8.08	\$	74,473		
2 Total Cut	CY	\$	6.00			0.00	\$	-		0.00	\$	-		260740.74	\$	1,564,444		260740.74	\$	1,564,444		
3 Total Fill	CY	\$	6.00			0.00	\$	-		0.00	\$	-		0.00	\$	-			\$	-		
4 Borrow	CY	\$	13.00			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-		
5 Spoil	CY	\$	13.00			0.00	\$	-		0.00	\$	-		260740.74	\$	3,389,630		260740.74	\$	3,389,630		
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$	-		0.00	\$	-		8.08	\$	49,648		8.08	\$	49,648		
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$	-		0.00	\$	-		0.61	\$	87,505		0.61	\$	87,505		
8 Special Drainage Facilities	5% Earthwork					\$		-		\$		-		\$	258,285			\$	258,285			
Structures, Tunnels, Walls																						
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.61	\$	21,195,559		0.00	\$	-		0.00	\$	-		0.00	\$	-		
Standard Structure (4 tracks)	Mile	\$	52,459,008																			
2 High Structure	Mile	\$	40,424,448			\$		-		\$		-		\$		-		\$		-		
3 Long Span Structure	Mile	\$	61,919,232			\$		-		\$		-		\$		-		\$		-		
4 Waterway Crossing - Primary	Mile	\$	85,342,208											\$		-		\$		-		
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			\$		-		\$		-		\$		-		\$		-		
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264			\$		-		\$		-		\$		-		\$		-		
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312			\$		-		\$		-		\$		-		\$		-		
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896			\$		-		\$		-		\$		-		\$		-		
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-		
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000			\$		-		\$		-		\$		-		\$		-		
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																			
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																			
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952			\$		-		\$		-		\$		-		\$		-		
12 Crossovers	ea	\$	442,368			\$		-		\$		-		\$		-		\$		-		
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.61	\$	79,543,079		
Trench Long (2 tracks) (<1000 ft)	Mile	\$	57,524,224			0.00	\$	-		0.00	\$	-		0.61	\$	34,863,166		0.00	\$	-		
Trench Long (4 tracks) (1000 + ft)	Mile	\$	86,286,336																			
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904			\$		-		\$		-		\$		-		\$		-		
Trench Short (4 tracks) (1000 + ft)	Mile	\$	118,265,856																			
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			\$		-		\$		-		\$		-		0.61	\$	7,181,033		
17 Retaining Walls	Mile	\$	8,613,888			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-		
18 Containment Walls	Mile	\$	5,907,456			\$		-		\$		-		0.00	\$	-		\$		-		
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080			\$		-		\$		-		\$		-		\$		-		
Four Track Drill & Blast	Mile	\$	293,775,360			\$		-		\$		-		\$		-		\$		-		
Four Track Mined (Soft Soil)	Mile	\$	158,400,000			\$		-		\$		-		\$		-		\$		-		
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																			
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																			
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-		
Grade Separations																						
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352			1	\$	13,284,352		\$		-		\$		-		\$		-		
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,																			

COST ELEMENTS			UNIT	UNIT PRICE	Aerial Viaduct (2 tracks) (HST only)				At-Grade (2 tracks) (CALTRAIN only)				Open Trench (2 tracks) (HST only)				Covered Trench (HST only)					
Subsection 4			Base: 2009 (3rd Quarter)	D				D				D				D						
				Start: 1533 + 00		Start: 1565 + 00		0.61 Miles		Start: 1533 + 00		End: 1565 + 00		0.61 Miles		Start: 1533 + 00		Start: 1565 + 00		0.61 Miles		
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1533 + 00	End: 1565 + 00	0.61 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)					Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles			
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-				\$	-	0	\$	-			0	\$	-	
8 Minor Crossing Closures	ea	\$	87,040				\$	-				\$	-		\$	-			0	\$	-	
Building Items																						
1 Intermediate Passenger Stations	Each	\$	-				\$	-				\$	-		\$	-			\$	-		
2 Terminal Passenger Stations	Each	\$	-				\$	-				\$	-		\$	-			\$	-		
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-				\$	-		\$	-			\$	-		
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-				\$	-		\$	-			\$	-		
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-				\$	-		\$	-			\$	-		
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-				\$	-		\$	-			\$	-		
3 Maintenance Facility	Each	\$	123,921,884				\$	-				\$	-		\$	-			\$	-		
4 Parking - Structures	space	\$	-				\$	-				\$	-		\$	-			\$	-		
5 Parking - At Grade	space	\$	-				\$	-				\$	-		\$	-			\$	-		
Rail & Utility Relocation																						
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-				\$	-		\$	-			\$	-		
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-				\$	-		\$	-			\$	-		
3 Single Track Removal	Mile	\$	130,048				\$	-				\$	-		\$	-			\$	-		
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-				\$	-		\$	-			\$	-		
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-		\$	-			\$	-		
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-		\$	-			\$	-		
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-		\$	-			\$	-		
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-		\$	-			\$	-		
ROW (Not Included)																						
ROW required for each segment																						
1 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-		\$	-			\$	-		
2 Urban	Acre	\$	1,371,510				\$	-				\$	-		\$	-			\$	-		
3 Dense Suburban	Acre	\$	908,134				\$	-				\$	-		\$	-			\$	-		
4 Suburban	Acre	\$	208,418				\$	-				\$	-		\$	-			\$	-		
5 Undeveloped	Acre	\$	3,642				\$	-				\$	-		\$	-			\$	-		
ROW required for Temp. Construction Easement							\$	-				\$	-		\$	-			\$	-		
1 Dense Urban	Acre						B					B			\$	-			\$	-		
2 Urban	Acre						\$	-				\$	-		\$	-			\$	-		
3 Dense Suburban	Acre						\$	-				\$	-		\$	-			\$	-		
4 Suburban	Acre						\$	-				\$	-		\$	-			\$	-		
5 Undeveloped	Acre						\$	-				\$	-		\$	-			\$	-		
Right-of-Way Required for Stations, Maintenance & Parking Facilities																						
6 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-		\$	-			\$	-		
7 Urban	Acre	\$	1,371,510				\$	-				\$	-		\$	-			\$	-		
8 Dense Suburban	Acre	\$	908,134				\$	-				\$	-		\$	-			\$	-		
9 Suburban	Acre	\$	208,418				\$	-				\$	-		\$	-			\$	-		
10 Undeveloped	Acre	\$	3,642				\$	-				\$	-		\$	-			\$	-		
Environmental Mitigation = 3% Line Costs							\$	1,119,855				\$	38,186			\$	1,294,072			\$	2,849,900	
System Elements																						
1 Signaling (ATC)	Mile	\$	2,070,000			0.61	\$	1,254,545			0.61	\$	1,254,545			0.61	\$	1,254,545		0.61	\$	1,254,545
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.61	\$	327,273			0.61	\$	327,273			0.61	\$	327,273		0.61	\$	327,273
3 Wayside Protection System	Mile	\$	108,000			0.61	\$	65,455			0.61	\$	65,455			0.61	\$	65,455		0.61	\$	65,455
Electrification Items																						
1 Traction Power supply	Mile	\$	1,170,000			0.61	\$	709,091			0.61	\$	709,091			0.61	\$	709,091		0.61	\$	709,091
2 Traction Power Distribution	Mile	\$	1,485,000			0.61	\$	900,000			0.61	\$	900,000			0.61	\$	900,000		0.61	\$	900,000
Program Implementation Costs (per screening)							\$	41,704,711				\$	4,567,413			\$	47,686,169			\$	101,102,943	
Program Implementation Costs							\$	10,634,701				\$	1,164,690			\$	12,159,973			\$	25,781,250	
Contingencies (per screening) (25%)							\$	10,426,178				\$	1,141,853			\$	11,921,542			\$	25,275,736	
Subtotal							\$	62,765,590				\$	6,873,956			\$	71,767,685			\$	152,159,929	
Subtotal (Rounded)							\$	63,000,000				\$	7,000,000			\$	72,000,000			\$	152,000,000	

COST ELEMENTS				UNIT	UNIT PRICE	Tunnel (HST only)					
Subsection 4				Base: 2009 (3rd Quarter)		D					
						Start: 1533 + 00		Start: 1565 + 00		0.61 Miles	
Subsection Details							Quant.	Cost			
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles				
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles				
Double Track Tunnel (Mile)					Start: 1533 + 00	End: 1565 + 00	0.61 Miles				
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles				
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles				
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles				
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles				
1 Double Track Section - Total											
2 Double Track Section - At Grade				Mile	\$	2,100,224		0.00 \$ -			
2 Double Track Section - On Structure				Mile	\$	4,700,160		0.00 \$ -			
3 Double Track Section - In Tunnel or Subway				Mile	\$	4,700,160		0.61 \$ 2,848,582			
4 Double Track Section - In Trench				Mile	\$	4,700,160		0.00 \$ -			
Four Track Section - Total											
Four-track Section - At Grade				Mile	\$	4,200,448		0.00 \$ -			
Four-Track Section - On Structure				Mile	\$	9,400,320		0 \$ -			
Four-Track Section - In Tunnel or Subway				Mile	\$	9,400,320		0.00 \$ -			
Four-Track Section - In Trench				Mile	\$	9,400,320		0 \$ -			
Single Track - Total											
5 Single Track Section - At Grade				Mile	\$	1,549,312		0 \$ -			
6 Single Track Section - On structure				Mile	\$	2,350,080		0 \$ -			
7 Single Track Section - In Tunnel or Subway				Mile	\$	2,350,080		0 \$ -			
8 Single Track Section - In Trench				Mile	\$	2,350,080		0 \$ -			
9 Freight Double Track - At Grade				Mile	\$	2,839,552		0 \$ -			
10 Freight Single Track - At Grade				Mile	\$	1,549,312		0 \$ -			
Earthwork Items											
1 Site Preparation - Undeveloped				Acre	\$	9,216		0.00 \$ -			
2 Total Cut				CY	\$	6.00		0.00 \$ -			
3 Total Fill				CY	\$	6.00		0.00 \$ -			
4 Borrow				CY	\$	13.00		0.00 \$ -			
5 Spoil				CY	\$	13.00		0.00 \$ -			
6 Landscape erosion Control				Acre	\$	6,144		0.00 \$ -			
7 Security Fencing (Both sides of ROW)				Mile	\$	144,384		0.00 \$ -			
8 Special Drainage Facilities				5% Earthwork				\$ -			
Structures, Tunnels, Walls											
1 Standard Structure (2 tracks)				Mile	\$	34,972,672		0.00 \$ -			
Standard Structure (4 tracks)				Mile	\$	52,459,008					
2 High Structure				Mile	\$	40,424,448		\$ -			
3 Long Span Structure				Mile	\$	61,919,232		\$ -			
4 Waterway Crossing - Primary				Mile	\$	85,342,208		\$ -			
5 Waterway Crossing - Secondary (Irrigation Canal)				Mile	\$	92,049,408		\$ -			
6 Twin Single Track Drill&Blast (<6 Miles)				Mile	\$	142,731,264		\$ -			
7 Twin Single Track TBM (<6 Miles)				Mile	\$	106,637,312		\$ -			
8 Twin Single Track TBM w/3rd Tube (<6 Miles)				Mile	\$	176,720,896		\$ -			
9 Double Track Drill & Blast				Mile	\$	146,887,680		0.00 \$ -			
10 Double Track Mined (Soft Soil)				Mile	\$	79,200,000		\$ -			
Double Track TBM (<6 Miles)				Mile	\$	106,637,312		0.61 \$ 64,628,674			
Double Track TBM w/3rd Tube (>6 Miles)				Mile	\$	176,720,896					
11 Seismic Chamber (Drill & Blast/Mined)				ea	\$	126,205,952		\$ -			
12 Crossovers				ea	\$	442,368		\$ -			
13 Cut & Cover Double Track Tunnel				Mile	\$	131,246,080		0.00 \$ -			
14 Trench Long (2 tracks) (<1000 ft)				Mile	\$	57,524,224		0.00 \$ -			
Trench Long (4 tracks) (1000 + ft)				Mile	\$	86,286,336					
15 Trench Short (2 tracks) (<1000 ft)				Mile	\$	78,843,904		\$ -			
Trench Short (4 tracks) (1000 + ft)				Mile	\$	118,265,856					
16 Mechanical & Electrical for Tunnels				Mile	\$	11,848,704		0.61 \$ 7,181,033			
17 Retaining Walls				Mile	\$	8,613,888		0.00 \$ -			
18 Containment Walls				Mile	\$	5,907,456		\$ -			
19 Single Track Cut and Cover Subway				Mile	\$	131,246,080		\$ -			
Four Track Drill & Blast				Mile	\$	293,775,360		\$ -			
Four Track Mined (Soft Soil)				Mile	\$	158,400,000		0.00 \$ -			
Four Track TBM (<6 Miles)				Mile	\$	213,274,624		0.00 \$ -			
Four Track TBM w/3rd Tube (>6 Miles)				Mile	\$	353,441,792		\$ -			
Four Track Cut & Cover Tunnel				Mile	\$	262,492,160		0.00 \$ -			
Grade Separations											
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)				ea	\$	13,284,352		\$ -			
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)				ea	\$	19,926,528		\$ -			
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)				ea	\$	2,759,680		0 \$ -			
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)				ea	\$	2,029,568		\$ -			
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)				ea	\$	3,563,520		\$ -			
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)				ea	\$	3,593,216		\$ -			
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)				ea	\$	2,850,816		\$ -			
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)				ea	\$	3,171,328		\$ -			

COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (HST only)		
Subsection 4			Base: 2009 (3rd Quarter)	D		
				Start: 1533 + 00	Start: 1565 + 00	0.61 Miles
Subsection Details					Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles
Double Track Tunnel (Mile)				Start: 1533 + 00	End: 1565 + 00	0.61 Miles
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles
7 Street Bridging HSR Trench	ea	\$	1,398,784			0 \$ -
8 Minor Crossing Closures	ea	\$	87,040			0 \$ -
Building Items						
1 Intermediate Passenger Stations	Each	\$	-			\$ -
2 Terminal Passenger Stations	Each	\$	-			\$ -
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000			\$ -
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			\$ -
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000			\$ -
Caltrain Passenger Station - In Trench	Each	\$	15,000,000			\$ -
3 Maintenance Facility	Each	\$	123,921,884			\$ -
4 Parking - Structures	space	\$	-			\$ -
5 Parking - At Grade	space	\$	-			\$ -
Rail & Utility Relocation						
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896			\$ -
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896			\$ -
3 Single Track Removal	Mile	\$	130,048			\$ -
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			\$ -
5 Major Utility Relocations - Urban	Mile	\$	1,084,416			\$ -
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168			\$ -
7 Major Utility Relocations - Suburban	Mile	\$	464,896			\$ -
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720			\$ -
ROW (Not Included)						
ROW required for each segment						
1 Dense Urban	Acre	\$	2,786,321			\$ -
2 Urban	Acre	\$	1,371,510			\$ -
3 Dense Suburban	Acre	\$	908,134			\$ -
4 Suburban	Acre	\$	208,418			\$ -
5 Undeveloped	Acre	\$	3,642			\$ -
ROW required for Temp. Construction Easement						\$ -
1 Dense Urban	Acre					\$ -
2 Urban	Acre					\$ -
3 Dense Suburban	Acre					\$ -
4 Suburban	Acre					\$ -
5 Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities						
6 Dense Urban	Acre	\$	2,786,321			\$ -
7 Urban	Acre	\$	1,371,510			\$ -
8 Dense Suburban	Acre	\$	908,134			\$ -
9 Suburban	Acre	\$	208,418			\$ -
10 Undeveloped	Acre	\$	3,642			\$ -
Environmental Mitigation = 3% Line Costs						\$ 2,239,749
System Elements						
1 Signaling (ATC)	Mile	\$	2,070,000		0.61	\$ 1,254,545
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000		0.61	\$ 327,273
3 Wayside Protection System	Mile	\$	108,000		0.61	\$ 65,455
Electrification Items						
1 Traction Power supply	Mile	\$	1,170,000		0.61	\$ 709,091
2 Traction Power Distribution	Mile	\$	1,485,000		0.61	\$ 900,000
Subtotal						\$ 80,154,401
Program Implementation Costs (per screening)						\$ 20,439,372
Program Implementation Costs						
Contingencies (per screening) (25%)						\$ 20,038,600
Subtotal						\$ 120,632,373
Subtotal (Rounded)						\$ 121,000,000

Subsection 5	5A (0.8 miles)		5B (1.7 miles)					5C (1.0 miles)		
	At Grade	Deep Tunnel (HST Only)	Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)	At-Grade	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$11 (4 tracks) \$9 (2 tracks)	\$151 (2 tracks)	\$178 <u>224</u> (4 tracks) \$166 (2 tracks)	\$98 (4 tracks) \$39 (2 tracks)	\$355 <u>337</u> (4 tracks) <del>\$343</del> <u>248</u> (2 tracks)	\$833 (4 tracks) \$474 (2 tracks)	\$524 (2 tracks)	\$20 (4 tracks) \$16 (2 tracks)	\$588 (4 tracks) \$610 (2 tracks)	\$671 (2 tracks)
Acquisition Cost of Permanent ROW	Highest	Lowest	Medium	Highest	Medium	Lowest	Lowest	Highest	Lowest	Lowest
Notes:	4 tracks - 1. Four tracks on existing Caltrain alignment. 2. Existing 4-track alignment. 2 tracks (2 HST)- 1. Two tracks on existing Caltrain alignment. 2. <i>Must be combined with 2 track deep tunnel option.</i>	2 tracks - 1. <i>Must be combined with 2 track at grade option.</i>	4 tracks - 1. Caltrain Atherton and Menlo Park stations; 2 tracks - 1. Caltrain Atherton and Menlo Park stations. 2. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - 1. Caltrain Atherton and Menlo Park stations; 2. Grade separations at Fair Oaks Lane, Watkins Ave, Encinal Ave, Glenwood Ave, Oak Grove Ave, and Ravenswood Ave. 2 tracks - 1. Grade separations at Fair Oaks Lane, Watkins Ave, Encinal Ave, Glenwood Ave, Oak Grove Ave, and Ravenswood Ave. 2. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - 1. Caltrain Atherton and Menlo Park stations; 2 tracks - 1. Caltrain Atherton and Menlo Park stations; 2. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - 1. Caltrain Atherton and Menlo Park stations; 2 tracks - 1. Caltrain Atherton and Menlo Park stations; 2. <i>Must be combined with 2 track deep tunnel option.</i>	2 tracks - 1. <i>Must be combined with 2 track aerial viaduct, at grade, trench, or tunnel option.</i>	4 tracks - No notes. 2 tracks - 1. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - No notes. 2 tracks - 1. <i>Must be combined with 2 track deep tunnel option.</i>	2 tracks - 1. <i>Must be combined with 2 track at grade, trench, or tunnel option.</i>



COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)				At-Grade (4 tracks)				Tunnel (HST only)			
Subsection 5			Base: 2009 (3rd Quarter)		A				A				A			
					Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 1565 + 00	Start: 1605 + 00	0.76 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1565 + 00	End: 1605 + 00	0.76 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
1	Double Track Section - Total	Mile	\$	2,100,224			0.76	\$ 1,591,079			0.00	\$ -			0.00	\$ -
2	Double Track Section - At Grade	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
3	Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.76 Miles	\$ 3,560,727
4	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																
	Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$ -			0.76	\$ 3,182,158			0.00	\$ -
	Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$ -			0	\$ -			0	\$ -
	Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$ -			0	\$ -			0.00 Miles	\$ -
	Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$ -			0.00	\$ -			0	\$ -
Single Track - Total																
5	Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -			0	\$ -			0	\$ -
6	Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
8	Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -			0	\$ -			0	\$ -
9	Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$ -			0	\$ -			0	\$ -
10	Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																
1	Site Preparation - Undeveloped	Acre	\$	9,216			6.31	\$ 58,153			6.31	\$ 58,153			0.00	\$ -
2	Total Cut	CY	\$	6.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
3	Total Fill	CY	\$	6.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
4	Borrow	CY	\$	13.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
5	Spoil	CY	\$	13.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
6	Landscape erosion Control	Acre	\$	6,144			6.31	\$ 38,769			6.31	\$ 38,769			0.00	\$ -
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.76	\$ 109,382			0.76	\$ 109,382			0.00	\$ -
8	Special Drainage Facilities	5% Earthwork					\$	10,315			\$	10,315			\$	-
Structures, Tunnels, Walls																
1	Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$ -			0.00	\$ -			0.00	\$ -
	Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00	\$ -			0.00	\$ -			0.00	\$ -
2	High Structure	Mile	\$	40,424,448				\$ -				\$ -				\$ -
3	Long Span Structure	Mile	\$	61,919,232				\$ -				\$ -				\$ -
4	Waterway Crossing - Primary	Mile	\$	85,342,208			0	\$ -			0	\$ -				\$ -
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -				\$ -				\$ -
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -				\$ -				\$ -
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -				\$ -				\$ -
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -				\$ -				\$ -
9	Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$ -			0.00	\$ -			0.00	\$ -
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -				\$ -			0.00	\$ -
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -				\$ -			0.76	\$ 80,785,842
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				\$ -				\$ -				\$ -
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -				\$ -				\$ -
12	Crossovers	ea	\$	442,368				\$ -				\$ -				\$ -
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$ -			0.00	\$ -			0.00	\$ -
14	Trench Long (2 tracks) (1000 ft+)	Mile	\$	78,843,904			0.00	\$ -			0.00	\$ -			0.00	\$ -
	Trench Long (4 tracks) (1000 ft+)	Mile	\$	118,265,856			0.00	\$ -			0.00	\$ -			0.00	\$ -
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	57,524,224				\$ -				\$ -				\$ -
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	86,286,336				\$ -				\$ -				\$ -
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$ -				\$ -			0.76	\$ 8,976,291
17	Retaining Walls	Mile	\$	8,613,888			0.00	\$ -			0.00	\$ -			0.00	\$ -
18	Containment Walls	Mile	\$	5,907,456			0.00	\$ -			0.00	\$ -			0.00	\$ -
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -				\$ -				\$ -
	Four Track Drill & Blast	Mile	\$	293,775,360				\$ -				\$ -				\$ -
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -				\$ -			0.00	\$ -
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$ -				\$ -			0.00	\$ -
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$ -				\$ -				\$ -
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -				\$ -				\$ -
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$ -				\$ -				\$ -
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			0	\$ -			0	\$ -			0	\$ -
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -				\$ -				\$ -
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$ -			0	\$ -				\$ -
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -				\$ -				\$ -
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816			0	\$ -			0	\$ -				\$ -
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -				\$ -				\$ -
7	Street Bridging HSR Trench	ea	\$	1,398,784				\$ -				\$ -			0	\$ -

COST ELEMENTS		UNIT	UNIT PRICE	At-Grade (2 tracks)				At-Grade (4 tracks)				Tunnel (HST only)			
Subsection 5		Base: 2009 (3rd Quarter)		A				A				A			
				Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 1565 + 00	Start: 1605 + 00	0.76 Miles	
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1565 + 00	End: 1605 + 00	0.76 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1565 + 00	End: 1605 + 00	0.76 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -			0	\$ -
Building Items															
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -			0	\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -				\$ -
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -
Rail & Utility Relocation															
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -
ROW (Not Included)															
ROW required for each segment															
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -
ROW required for Temp. Construction Easement							\$ -				\$ -				\$ -
1	Dense Urban	Acre					\$ -				\$ -				\$ -
2	Urban	Acre					\$ -				\$ -				\$ -
3	Dense Suburban	Acre					\$ -				\$ -				\$ -
4	Suburban	Acre					\$ -				\$ -				\$ -
5	Undeveloped	Acre					\$ -				\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities															
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -
	Environmental Mitigation = 3% Line Costs						\$ 54,231				\$ 101,963				\$ 2,799,686
System Elements															
1	Signaling (ATC)	Mile	\$ 2,070,000			0.76	\$ 1,568,182			0.76	\$ 1,568,182			0.76	\$ 1,568,182
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			0.76	\$ 409,091			0.76	\$ 409,091			0.76	\$ 409,091
3	Wayside Protection System	Mile	\$ 108,000			0.76	\$ 81,818			0.76	\$ 81,818			0.76	\$ 81,818
Electrification Items															
1	Traction Power supply	Mile	\$ 1,170,000			0.76	\$ 886,364			0.76	\$ 886,364			0.76	\$ 886,364
2	Traction Power Distribution	Mile	\$ 1,485,000			0.76	\$ 1,125,000			0.76	\$ 1,125,000			0.76	\$ 1,125,000
	Subtotal						\$ 5,932,383				\$ 7,571,194				\$ 100,193,001
	Program Implementation Costs						\$ 1,512,758				\$ 1,930,654				\$ 25,549,215
	Contingencies (per screening) (25%)						\$ 1,483,096				\$ 1,892,798				\$ 25,048,250
	Subtotal						\$ 8,928,236				\$ 11,394,647				\$ 150,790,466
	Subtotal (Rounded)						\$ 9,000,000				\$ 11,000,000				\$ 151,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Aerial (2 tracks)				Aerial (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)			
Subsection 5				Base: 2009 (3rd Quarter)	B				B				B				B			
					Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$ -			0.00	\$ -			1.70	\$ 3,579,927			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				1.70	\$ 8,011,636			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.70	\$ 7,159,855
Four-Track Section - On Structure	Mile	\$	9,400,320				0.00	\$ -			1.70	\$ 16,023,273			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Freight Double Track - At Grade							0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				26.52	\$ 244,408			26.52	\$ 244,408			26.52	\$ 244,408			26.52	\$ 244,408
2 Total Cut	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Total Fill	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Borrow	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144				26.52	\$ 162,939			26.52	\$ 162,939			26.52	\$ 162,939			26.52	\$ 162,939
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00	\$ -			0.00	\$ -			1.70	\$ 246,109			1.70	\$ 246,109
8 Special Drainage Facilities	5% Earthwork						\$ 20,367				\$ 20,367				\$ 32,673			\$ 32,673		
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				1.70	\$ 59,612,509			0.00	\$ -			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00				1.70	\$ 89,418,764			0.00	\$ -			0.00	\$ -
2 High Structure	Mile	\$	40,424,448				\$ -				\$ -				\$ -				\$ -	
3 Long Span Structure	Mile	\$	61,919,232				\$ -				\$ -				\$ -				\$ -	
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -				\$ -				\$ -				\$ -	
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -				\$ -				\$ -				\$ -	
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -				\$ -				\$ -				\$ -	
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -				\$ -				\$ -				\$ -	
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -				\$ -				\$ -				\$ -	
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -				\$ -				\$ -				\$ -	
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -				\$ -				\$ -				\$ -	
12 Crossovers	ea	\$	442,368				\$ -				\$ -				\$ -				\$ -	
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336				0.00				0.00				0.00				0.00	
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -				\$ -				\$ -				\$ -	
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856																	
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$ -				\$ -				\$ -				\$ -	
17 Retaining Walls	Mile	\$	8,613,888				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -				\$ -				\$ -				\$ -	
Four Track Drill & Blast	Mile	\$	293,775,360				\$ -				\$ -				\$ -				\$ -	
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -				\$ -				\$ -				\$ -	
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -				\$ -				\$ -				\$ -	
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				0	\$ -			0	\$ -			0	\$ -			0	\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				0	\$ -			0	\$ -			0	\$ -			6	\$ 16,558,080
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -				\$ -				6	\$ 12,177,408			\$ -	
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$ -				\$ -				\$ -				\$ -	
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -				\$ -				\$ -				\$ -	
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$ -				\$ -				\$ -				\$ -	
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -				\$ -				\$ -				\$ -	

COST ELEMENTS			UNIT	UNIT PRICE	Aerial (2 tracks)				Aerial (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)				
Subsection 5				Base: 2009 (3rd Quarter)	B				B				B				B				
					Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Trench (Mile)					Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00	0.00 Miles	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-				\$	-						\$	-	
8 Minor Crossing Closures	ea	\$	87,040				\$	-				\$	-						\$	-	
Building Items																					
1 Intermediate Passenger Stations	Each	\$	-				\$	-				\$	-						\$	-	
2 Terminal Passenger Stations	Each	\$	-				\$	-				\$	-						\$	-	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-				\$	-				2	\$	30,000,000		
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			2	\$	30,000,000			2	\$	30,000,000						\$	-	
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-				\$	-						\$	-	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-				\$	-						\$	-	
3 Maintenance Facility	Each	\$	123,921,884				\$	-				\$	-						\$	-	
4 Parking - Structures	space	\$	-				\$	-				\$	-						\$	-	
5 Parking - At Grade	space	\$	-				\$	-				\$	-						\$	-	
Rail & Utility Relocation																					
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-				\$	-						\$	-	
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-				\$	-						\$	-	
3 Single Track Removal	Mile	\$	130,048				\$	-				\$	-						\$	-	
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-				\$	-						\$	-	
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-						\$	-	
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-						\$	-	
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-						\$	-	
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-						\$	-	
ROW (Not Included)																					
ROW required for each segment																					
1 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-						\$	-	
2 Urban	Acre	\$	1,371,510				\$	-				\$	-						\$	-	
3 Dense Suburban	Acre	\$	908,134				\$	-				\$	-						\$	-	
4 Suburban	Acre	\$	208,418				\$	-				\$	-						\$	-	
5 Undeveloped	Acre	\$	3,642				\$	-				\$	-						\$	-	
ROW required for Temp. Construction Easement								\$	-			\$	-						\$	-	
1 Dense Urban	Acre						B				B										
2 Urban	Acre						\$	-				\$	-						\$	-	
3 Dense Suburban	Acre						\$	-				\$	-						\$	-	
4 Suburban	Acre						\$	-				\$	-						\$	-	
5 Undeveloped	Acre						\$	-				\$	-						\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																					
6 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-						\$	-	
7 Urban	Acre	\$	1,371,510				\$	-				\$	-						\$	-	
8 Dense Suburban	Acre	\$	908,134				\$	-				\$	-						\$	-	
9 Suburban	Acre	\$	208,418				\$	-				\$	-						\$	-	
10 Undeveloped	Acre	\$	3,642				\$	-				\$	-						\$	-	
Environmental Mitigation = 3% Line Costs								\$	2,941,556			\$	4,076,093			\$	493,304			\$	1,632,122
System Elements																					
1 Signaling (ATC)	Mile	\$	2,070,000			1.70	\$	3,528,409			1.70	\$	3,528,409		1.70	\$	3,528,409		1.70	\$	3,528,409
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.70	\$	920,455			1.70	\$	920,455		1.70	\$	920,455		1.70	\$	920,455
3 Wayside Protection System	Mile	\$	108,000			1.70	\$	184,091			1.70	\$	184,091		1.70	\$	184,091		1.70	\$	184,091
Electrification Items																					
1 Traction Power supply	Mile	\$	1,170,000			1.70	\$	1,994,318			1.70	\$	1,994,318		1.70	\$	1,994,318		1.70	\$	1,994,318
2 Traction Power Distribution	Mile	\$	1,485,000			1.70	\$	2,531,250			1.70	\$	2,531,250		1.70	\$	2,531,250		1.70	\$	2,531,250
Subtotal							\$	110,151,939				\$	149,104,366			\$	26,095,291			\$	65,194,708
Program Implementation Costs (per screening)							\$	28,088,744				\$	38,021,613			\$	6,654,299			\$	16,624,651
Program Implementation Costs																					
Contingencies (per screening) (25%)							\$	27,537,985				\$	37,276,092			\$	6,523,823			\$	16,298,677
Subtotal							\$	165,778,668				\$	224,402,071			\$	39,273,413			\$	98,118,036
Subtotal (Rounded)							\$ 166,000,000					\$ 224,000,000				\$ 39,000,000				\$ 98,000,000	

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (2 tracks)				Open Trench (4 tracks)				Covered Trench (2 tracks)				Covered Trench (4 tracks)			
Subsection 5				Base: 2009 (3rd Quarter)	B				B				B				B			
					Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles	
Four Track Trench (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			1.70	\$ 8,011,636			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				1.70	\$ 8,011,636			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0	\$ -			0	\$ -			0.00	\$ -			1.70	\$ 16,023,273
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$ -			1.70	\$ 16,023,273			0	\$ -			0	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Freight Double Track - At Grade																				
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Freight Single Track - At Grade																				
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				22.73	\$ 209,455			22.73	\$ 209,455			22.73	\$ 209,455			22.73	\$ 209,455
2 Total Cut	CY	\$	6.00				733333.33	\$ 4,400,000			733333.33	\$ 4,400,000			733333.33	\$ 4,400,000			733333.33	\$ 4,400,000
3 Total Fill	CY	\$	6.00				0.00	\$ -			0.00	\$ -				\$ -				\$ -
4 Borrow	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				733333.33	\$ 9,533,333			733333.33	\$ 9,533,333			733333.33	\$ 9,533,333			733333.33	\$ 9,533,333
6 Landscape erosion Control	Acre	\$	6,144				22.73	\$ 139,636			22.73	\$ 139,636			22.73	\$ 139,636			22.73	\$ 139,636
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				1.70	\$ 246,109			1.70	\$ 246,109			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork							\$ 726,427				\$ 726,427				\$ 714,121				\$ 714,121
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00				0.00				0.00				0.00	
2 High Structure	Mile	\$	40,424,448					\$ -				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232					\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$ -				\$ -				\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000					\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$ -				\$ -				\$ -				\$ -
12 Crossovers	ea	\$	442,368					\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.00	\$ -			1.70	\$ 223,714,909			0.00	\$ -
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224				1.70	\$ 98,052,655			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336				0.00				1.70	\$ 147,078,982			0.00				0.00	
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856																	
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				0.00	\$ -			0.00	\$ -			1.70	\$ 20,196,655			1.70	\$ 20,196,655
17 Retaining Walls	Mile	\$	8,613,888				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -				\$ -			0.00	\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.70	\$ 447,429,818
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528					\$ -				\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				0	\$ -			0	\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$ -				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -				\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (2 tracks)			Open Trench (4 tracks)				Covered Trench (2 tracks)			Covered Trench (4 tracks)						
Subsection 5				Base: 2009 (3rd Quarter)	B			B				B			B						
					Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		Start: 1605 + 00	Start: 1695 + 00	1.70 Miles		
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)					Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		
Four Track Trench (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1605 + 00	End: 1695 + 00	1.70 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
7 Street Bridging HSR Trench	ea	\$	1,398,784			0	\$	-			0	\$	-			0	\$	-			
8 Minor Crossing Closures	ea	\$	87,040				\$	-				\$	-			0	\$	-			
Building Items																					
1 Intermediate Passenger Stations	Each	\$	-				\$	-				\$	-				\$	-			
2 Terminal Passenger Stations	Each	\$	-				\$	-				\$	-				\$	-			
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-				\$	-				\$	-			
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-				\$	-				\$	-			
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-				\$	-				\$	-			
Caltrain Passenger Station - In Trench	Each	\$	15,000,000			2	\$	30,000,000			2	\$	30,000,000			2	\$	30,000,000			
3 Maintenance Facility	Each	\$	123,921,884				\$	-				\$	-				\$	-			
4 Parking - Structures	space	\$	-				\$	-				\$	-				\$	-			
5 Parking - At Grade	space	\$	-				\$	-				\$	-				\$	-			
Rail & Utility Relocation																					
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-				\$	-				\$	-			
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-				\$	-				\$	-			
3 Single Track Removal	Mile	\$	130,048				\$	-				\$	-				\$	-			
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-				\$	-				\$	-			
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-				\$	-			
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-				\$	-			
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-				\$	-			
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-				\$	-			
ROW (Not Included)																					
ROW required for each segment																					
1 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-				\$	-			
2 Urban	Acre	\$	1,371,510				\$	-				\$	-				\$	-			
3 Dense Suburban	Acre	\$	908,134				\$	-				\$	-				\$	-			
4 Suburban	Acre	\$	208,418				\$	-				\$	-				\$	-			
5 Undeveloped	Acre	\$	3,642				\$	-				\$	-				\$	-			
ROW required for Temp. Construction Easement								\$	-			\$	-				\$	-			
1 Dense Urban	Acre						\$	-				\$	-				\$	-			
2 Urban	Acre						\$	-				\$	-				\$	-			
3 Dense Suburban	Acre						\$	-				\$	-				\$	-			
4 Suburban	Acre						\$	-				\$	-				\$	-			
5 Undeveloped	Acre						\$	-				\$	-				\$	-			
Right-of-Way Required for Stations, Maintenance & Parking Facilities																					
6 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-				\$	-			
7 Urban	Acre	\$	1,371,510				\$	-				\$	-				\$	-			
8 Dense Suburban	Acre	\$	908,134				\$	-				\$	-				\$	-			
9 Suburban	Acre	\$	208,418				\$	-				\$	-				\$	-			
10 Undeveloped	Acre	\$	3,642				\$	-				\$	-				\$	-			
Environmental Mitigation = 3% Line Costs								\$	4,539,578			\$	6,250,716			\$	8,907,592			\$	15,859,389
System Elements																					
1 Signaling (ATC)	Mile	\$	2,070,000			1.70	\$	3,528,409			1.70	\$	3,528,409			1.70	\$	3,528,409			
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.70	\$	920,455			1.70	\$	920,455			1.70	\$	920,455			
3 Wayside Protection System	Mile	\$	108,000			1.70	\$	184,091			1.70	\$	184,091			1.70	\$	184,091			
Electrification Items																					
1 Traction Power supply	Mile	\$	1,170,000			1.70	\$	1,994,318			1.70	\$	1,994,318			1.70	\$	1,994,318			
2 Traction Power Distribution	Mile	\$	1,485,000			1.70	\$	2,531,250			1.70	\$	2,531,250			1.70	\$	2,531,250			
Subtotal								\$	165,017,351			\$	223,766,454			\$	314,985,861			\$	553,664,202
Program Implementation Costs (per screening)								\$	42,079,425			\$	57,060,446			\$	80,321,394			\$	141,184,372
Program Implementation Costs																					
Contingencies (per screening) (25%)								\$	41,254,338			\$	55,941,613			\$	78,746,465			\$	138,416,051
Subtotal								\$	248,351,114			\$	336,768,513			\$	474,053,720			\$	833,264,625
Subtotal (Rounded)								\$	248,000,000			\$	337,000,000			\$	474,000,000			\$	833,000,000



COST ELEMENTS			UNIT	UNIT PRICE	Tunnel (HST only)			
Subsection 5				Base: 2009 (3rd Quarter)	B			
					Start: 1605 + 00	Start: 1695 + 00	1.70 Miles	
Subsection Details							Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 1605 + 00	End: 1695 + 00	1.70 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Section - Total								
1 Double Track Section - At Grade	Mile	\$	2,100,224				0.00 \$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00 \$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				1.70 Miles \$	8,011,636
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00 \$	-
Four Track Section - Total								
Four-track Section - At Grade	Mile	\$	4,200,448				0.00 \$	-
Four-Track Section - On Structure	Mile	\$	9,400,320				0 \$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00 Miles \$	-
Four-Track Section - In Trench	Mile	\$	9,400,320				0 \$	-
Single Track - Total								
5 Single Track Section - At Grade	Mile	\$	1,549,312				0 \$	-
6 Single Track Section - On structure	Mile	\$	2,350,080				0 \$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0 \$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080				0 \$	-
Freight Double Track - At Grade								
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0 \$	-
Freight Single Track - At Grade								
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0 \$	-
Earthwork Items								
1 Site Preparation - Undeveloped	Acre	\$	9,216				0.00 \$	-
2 Total Cut	CY	\$	6.00				0.00 \$	-
3 Total Fill	CY	\$	6.00				0.00 \$	-
4 Borrow	CY	\$	13.00				0.00 \$	-
5 Spoil	CY	\$	13.00				0.00 \$	-
6 Landscape erosion Control	Acre	\$	6,144				0.00 \$	-
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00 \$	-
8 Special Drainage Facilities	5% Earthwork						\$	-
Structures, Tunnels, Walls								
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00 \$	-
Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00 \$	-
2 High Structure	Mile	\$	40,424,448				\$	-
3 Long Span Structure	Mile	\$	61,919,232				\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00 \$	-
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				0.00 \$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				0.00 \$	-
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				1.70 \$	301,228,800
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-
12 Crossovers	ea	\$	442,368				\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00 \$	-
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224				0.00 \$	-
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336				0.00 \$	-
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856					
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				1.70 \$	20,196,655
17 Retaining Walls	Mile	\$	8,613,888				0.00 \$	-
18 Containment Walls	Mile	\$	5,907,456				0.00 \$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-
Four Track Drill & Blast	Mile	\$	293,775,360				\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				0.00 \$	-
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				0.00 \$	-
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$	-
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00 \$	-
Grade Separations								
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				0 \$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-

COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (HST only)		
Subsection 5			Base: 2009 (3rd Quarter)	B		
				Start: 1605 + 00	Start: 1695 + 00	1.70 Miles
Subsection Details					Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles
Double Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Double Track Tunnel (Mile)				Start: 1605 + 00	End: 1695 + 00	1.70 Miles
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles
7 Street Bridging HSR Trench	ea	\$	1,398,784			0 \$ -
8 Minor Crossing Closures	ea	\$	87,040			0 \$ -
Building Items						
1 Intermediate Passenger Stations	Each	\$	-			\$ -
2 Terminal Passenger Stations	Each	\$	-			\$ -
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000			\$ -
Caltrain Passenger Station - On Structure	Each	\$	15,000,000			0 \$ -
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000			0 \$ -
Caltrain Passenger Station - In Trench	Each	\$	15,000,000			\$ -
3 Maintenance Facility	Each	\$	123,921,884			\$ -
4 Parking - Structures	space	\$	-			\$ -
5 Parking - At Grade	space	\$	-			\$ -
Rail & Utility Relocation						
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896			\$ -
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896			\$ -
3 Single Track Removal	Mile	\$	130,048			\$ -
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			\$ -
5 Major Utility Relocations - Urban	Mile	\$	1,084,416			\$ -
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168			\$ -
7 Major Utility Relocations - Suburban	Mile	\$	464,896			\$ -
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720			\$ -
ROW (Not Included)						
ROW required for each segment						
1 Dense Urban	Acre	\$	2,786,321			\$ -
2 Urban	Acre	\$	1,371,510			\$ -
3 Dense Suburban	Acre	\$	908,134			\$ -
4 Suburban	Acre	\$	208,418			\$ -
5 Undeveloped	Acre	\$	3,642			\$ -
ROW required for Temp. Construction Easement						
1 Dense Urban	Acre					\$ -
2 Urban	Acre					\$ -
3 Dense Suburban	Acre					\$ -
4 Suburban	Acre					\$ -
5 Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities						
6 Dense Urban	Acre	\$	2,786,321			\$ -
7 Urban	Acre	\$	1,371,510			\$ -
8 Dense Suburban	Acre	\$	908,134			\$ -
9 Suburban	Acre	\$	208,418			\$ -
10 Undeveloped	Acre	\$	3,642			\$ -
Environmental Mitigation = 3% Line Costs						\$ 9,883,113
System Elements						
1 Signaling (ATC)	Mile	\$	2,070,000			1.70 \$ 3,528,409
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.70 \$ 920,455
3 Wayside Protection System	Mile	\$	108,000			1.70 \$ 184,091
Electrification Items						
1 Traction Power supply	Mile	\$	1,170,000			1.70 \$ 1,994,318
2 Traction Power Distribution	Mile	\$	1,485,000			1.70 \$ 2,531,250
Subtotal						\$ 348,478,726
Program Implementation Costs (per screening)						\$ 88,862,075
Program Implementation Costs						
Contingencies (per screening) (25%)						\$ 87,119,682
Subtotal						\$ 524,460,483
Subtotal (Rounded)						\$ 524,000,000

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)				At-Grade (4 tracks)				Covered Trench (2 tracks)				Covered Trench (4 tracks)			
Subsection 5				Base: 2009 (3rd Quarter)	C				C				C				C			
					Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 1695 + 00	Start: 1765 + 00	1.33 Miles		Start: 1695 + 00	Start: 1765 + 00	1.33 Miles	
Subsection Details							Quant.	Cost				Quant.	Cost				Quant.	Cost		
Double Track At-Grade (Mile)					Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				1.33	\$ 2,784,388			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			1.33	\$ 6,231,273			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$ -			1.33	\$ 5,568,776			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.33	\$ 12,462,545
Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Freight Double Track - At Grade																				
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Freight Single Track - At Grade																				
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				13.89	\$ 128,010			13.89	\$ 128,010			17.68	\$ 162,909			17.68	\$ 162,909
2 Total Cut	CY	\$	6.00				0.00	\$ -			0.00	\$ -			570370.37	\$ 3,422,222			570370.37	\$ 3,422,222
3 Total Fill	CY	\$	6.00				0.00	\$ -			0.00	\$ -				\$ -				\$ -
4 Borrow	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				0.00	\$ -			0.00	\$ -			570370.37	\$ 7,414,815			570370.37	\$ 7,414,815
6 Landscape erosion Control	Acre	\$	6,144				13.89	\$ 85,340			13.89	\$ 85,340			17.68	\$ 108,606			17.68	\$ 108,606
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				1.33	\$ 191,418			1.33	\$ 191,418			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork							\$ 20,238				\$ 20,238				\$ 555,428				\$ 555,428
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 High Structure	Mile	\$	40,424,448					\$ -				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232					\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$ -				\$ -				\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680				0.00	\$ -			0.00	\$ -			1.33	\$ 194,737,455			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000					\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312																	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896																	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$ -				\$ -				\$ -				\$ -
12 Crossovers	ea	\$	442,368					\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0.00	\$ -			0.00	\$ -			1.33	\$ 174,000,485			0.00	\$ -
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856					\$ -				\$ -				\$ -				\$ -
Mechanical & Electrical for Tunnels								\$ -				\$ -				\$ -				\$ -
17 Retaining Walls	Mile	\$	8,613,888				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls	Mile	\$	5,907,456				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Single Track Cut and Cover Subway								\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624																	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792																	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			1.33	\$ 348,000,970
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				0	\$ -			0	\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				0	\$ -			0	\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$ -				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -				\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)			At-Grade (4 tracks)			Covered Trench (2 tracks)			Covered Trench (4 tracks)							
Subsection 5				Base: 2009 (3rd Quarter)	C			C			C			C							
					Start: 1695 + 00	End: 1765 + 00	1.33 Miles	Start: 1695 + 00	End: 1765 + 00	1.33 Miles	Start: 1695 + 00	Start: 1765 + 00	1.33 Miles	Start: 1695 + 00	Start: 1765 + 00	1.33 Miles					
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles		Start: 0 + 00	Start: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 0 + 00		0.00 Miles			
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1695 + 00	End: 1765 + 00	1.33 Miles			
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-			\$	-		0	\$	-		0	\$	-	
8 Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-		0	\$	-		0	\$	-	
Building Items																					
1 Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-			\$	-	
2 Terminal Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-			\$	-	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-			\$	-			\$	-			\$	-	
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-			\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-			\$	-			\$	-	
3 Maintenance Facility	Each	\$	123,921,884				\$	-			\$	-			\$	-			\$	-	
4 Parking - Structures	space	\$	-				\$	-			\$	-			\$	-			\$	-	
5 Parking - At Grade	space	\$	-				\$	-			\$	-			\$	-			\$	-	
Rail & Utility Relocation																					
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-			\$	-			\$	-	
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-			\$	-			\$	-	
3 Single Track Removal	Mile	\$	130,048				\$	-			\$	-			\$	-			\$	-	
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-			\$	-			\$	-	
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-			\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-			\$	-			\$	-	
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-			\$	-			\$	-	
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-			\$	-			\$	-	
ROW (Not Included)																					
ROW required for each segment																					
1 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-			\$	-	
2 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-			\$	-	
3 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-			\$	-	
4 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-			\$	-	
5 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement							\$	-			\$	-			\$	-			\$	-	
1 Dense Urban	Acre						B				B										
2 Urban	Acre						\$	-			\$	-			\$	-			\$	-	
3 Dense Suburban	Acre						\$	-			\$	-			\$	-			\$	-	
4 Suburban	Acre						\$	-			\$	-			\$	-			\$	-	
5 Undeveloped	Acre						\$	-			\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																					
6 Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-			\$	-	
7 Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-			\$	-	
8 Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-			\$	-	
9 Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-			\$	-	
10 Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs							\$	96,282			\$	179,813			\$	11,598,996			\$	11,163,825	
System Elements																					
1 Signaling (ATC)	Mile	\$	2,070,000			1.33	\$	2,744,318			1.33	\$	2,744,318		1.33	\$	2,744,318		1.33	\$	2,744,318
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.33	\$	715,909			1.33	\$	715,909		1.33	\$	715,909		1.33	\$	715,909
3 Wayside Protection System	Mile	\$	108,000			1.33	\$	143,182			1.33	\$	143,182		1.33	\$	143,182		1.33	\$	143,182
Electrification Items																					
1 Traction Power supply	Mile	\$	1,170,000			1.33	\$	1,551,136			1.33	\$	1,551,136		1.33	\$	1,551,136		1.33	\$	1,551,136
2 Traction Power Distribution	Mile	\$	1,485,000			1.33	\$	1,968,750			1.33	\$	1,968,750		1.33	\$	1,968,750		1.33	\$	1,968,750
Subtotal							\$	10,428,972			\$	13,296,892			\$	405,355,483			\$	390,414,615	
Program Implementation Costs (per screening)							\$	2,659,388			\$	3,390,707			\$	103,365,648			\$	99,555,727	
Program Implementation Costs																					
Contingencies (per screening) (25%)							\$	2,607,243			\$	3,324,223			\$	101,338,871			\$	97,603,654	
Subtotal							\$	15,695,603			\$	20,011,822			\$	610,060,002			\$	587,573,996	
Subtotal (Rounded)							\$	16,000,000			\$	20,000,000			\$	610,000,000			\$	588,000,000	

COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (HST only)			
Subsection 5			Base: 2009 (3rd Quarter)	C			
				Start: 1695 + 00	Start: 1765 + 00	1.33 Miles	
Subsection Details						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)				Start: 1695 + 00	End: 1765 + 00	1.33 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Section - Total							
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			1.33 Miles	\$ 6,231,273
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -
Four Track Section - Total							
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320			0	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00 Miles	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$ -
Single Track - Total							
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -
Freight Double Track - At Grade		Mile	\$ 2,839,552			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -
Earthwork Items							
1 Site Preparation - Undeveloped	Acre	\$	9,216			0.00	\$ -
2 Total Cut	CY	\$	6.00			0.00	\$ -
3 Total Fill	CY	\$	6.00			0.00	\$ -
4 Borrow	CY	\$	13.00			0.00	\$ -
5 Spoil	CY	\$	13.00			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork					\$	\$ -
Structures, Tunnels, Walls							
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00	\$ -
2 High Structure	Mile	\$	40,424,448			\$	\$ -
3 Long Span Structure	Mile	\$	61,919,232			\$	\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208			\$	\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			\$	\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264			\$	\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312			\$	\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896			\$	\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000			0.00	\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312			0.00	\$ -
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896			1.33	\$ 234,289,067
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952			\$	\$ -
12 Crossovers	ea	\$	442,368			\$	\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			1.33	\$ 174,000,485
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.00	\$ -
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904			\$	\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856				\$ -
Mechanical & Electrical for Tunnels		Mile	\$ 11,848,704			\$	\$ -
17 Retaining Walls	Mile	\$	8,613,888			1.33	\$ 11,419,927
18 Containment Walls	Mile	\$	5,907,456			0.00	\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080			\$	\$ -
Four Track Drill & Blast	Mile	\$	293,775,360			\$	\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000			0.00	\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624			0.00	\$ -
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792			\$	\$ -
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -
Grade Separations							
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352			\$	\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528			\$	\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			0	\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568			\$	\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			\$	\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216			\$	\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816			\$	\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328			\$	\$ -

COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (HST only)		
Subsection 5			Base: 2009 (3rd Quarter)	C		
				Start: 1695 + 00	Start: 1765 + 00	1.33 Miles
Subsection Details					Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	Start: 0 + 00	0.00 Miles
Double Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Double Track Tunnel (Mile)				Start: 1695 + 00	End: 1765 + 00	1.33 Miles
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles
7	Street Bridging HSR Trench	ea	\$ 1,398,784			0 \$ -
8	Minor Crossing Closures	ea	\$ 87,040			0 \$ -
Building Items						
1	Intermediate Passenger Stations	Each	\$ -			\$ -
2	Terminal Passenger Stations	Each	\$ -			\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000			\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000			\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000			\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000			\$ -
3	Maintenance Facility	Each	\$ 123,921,884			\$ -
4	Parking - Structures	space	\$ -			\$ -
5	Parking - At Grade	space	\$ -			\$ -
Rail & Utility Relocation						
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896			\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896			\$ -
3	Single Track Removal	Mile	\$ 130,048			\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288			\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416			\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168			\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896			\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720			\$ -
ROW (Not Included)						
ROW required for each segment						
1	Dense Urban	Acre	\$ 2,786,321			\$ -
2	Urban	Acre	\$ 1,371,510			\$ -
3	Dense Suburban	Acre	\$ 908,134			\$ -
4	Suburban	Acre	\$ 208,418			\$ -
5	Undeveloped	Acre	\$ 3,642			\$ -
ROW required for Temp. Construction Easement						
1	Dense Urban	Acre				\$ -
2	Urban	Acre				\$ -
3	Dense Suburban	Acre				\$ -
4	Suburban	Acre				\$ -
5	Undeveloped	Acre				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities						
6	Dense Urban	Acre	\$ 2,786,321			\$ -
7	Urban	Acre	\$ 1,371,510			\$ -
8	Dense Suburban	Acre	\$ 908,134			\$ -
9	Suburban	Acre	\$ 208,418			\$ -
10	Undeveloped	Acre	\$ 3,642			\$ -
Environmental Mitigation = 3% Line Costs						\$ 12,778,223
System Elements						
1	Signaling (ATC)	Mile	\$ 2,070,000			1.33 \$ 2,744,318
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.33 \$ 715,909
3	Wayside Protection System	Mile	\$ 108,000			1.33 \$ 143,182
Electrification Items						
1	Traction Power supply	Mile	\$ 1,170,000			1.33 \$ 1,551,136
2	Traction Power Distribution	Mile	\$ 1,485,000			1.33 \$ 1,968,750
Subtotal						\$ 445,842,270
Program Implementation Costs (per screening)						\$ 113,689,779
Program Implementation Costs						
Contingencies (per screening) (25%)						\$ 111,460,567
Subtotal						\$ 670,992,616
Subtotal (Rounded)						\$ 671,000,000



Subsection 6	6A (1.2 miles)			6B (0.7 miles)				
	At Grade	Covered Trench/Tunnel	Deep Tunnel (HST Only)	Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$75 (4 tracks) \$48 (2 tracks)	\$599	\$242 (2 tracks)	<del>\$52</del> <u>71</u> (4 tracks) \$47 (2 tracks)	\$41 (4 tracks) \$39 (2 tracks)	<del>\$42</del> <u>116</u>	\$321	\$137 (2 tracks)
Acquisition Cost of Permanent ROW	Highest	Lowest	Lowest	Medium	Highest	Medium	Lowest	Lowest
Notes:	4 tracks - 1. Grade separation at Palo Alto Avenue. 2. Caltrain Palo Alto station. 3. Potential HST Palo Alto station (costs not included). 2 tracks - 1. Grade separation at Palo Alto Avenue. 2. Potential HST Palo Alto station (costs not included). 3. <i>Must be combined with 2 track deep tunnel option.</i>	1. Raise University Ave, Homer (Pedestrian) Ave, and Embarcadero Road. 2. Caltrain Palo Alto station. 3. Potential HST Palo Alto station (costs not included).	2 tracks - 1. Caltrain two tracks to remain at grade. 2. No potential HST Palo Alto station. 3. <i>Must be combined with 2 track at grade option.</i>	4 tracks - No notes 2 tracks - 1. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - No notes 2 tracks - 1. Grade separation at Churchill Avenue. 2. <i>Must be combined with 2 track deep tunnel option.</i>			2 tracks - 1. Caltrain two tracks to remain at grade or aerial viaduct. 2. <i>Must be combined with 2 track aerial viaduct or at grade option.</i>

Subsection 6	6C (1.4 miles)					6D (0.6 miles)				
	Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)	Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	<del>\$133</del> <u>171</u> (4 tracks) <del>\$122</del> (2 tracks)	\$46 (4 tracks) \$18 (2 tracks)	<del>\$278</del> <u>263</u>	\$694	\$284 (2 tracks)	<del>\$44</del> <u>59</u> (4 tracks) <del>\$40</del> (2 tracks)	<del>\$112</del> <u>72</u> (4 tracks) <del>\$72</del> <u>70</u> (2 tracks)	<del>\$112</del> <u>105</u>	\$272	\$114 (2 tracks)
Acquisition Cost of Permanent ROW	Medium	Highest	Medium	Lowest	Lowest	Medium	Highest	Medium	Lowest	Lowest
Notes:	4 tracks - No notes 2 tracks - 1. Caltrain California Avenue station. 2. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - No notes 2 tracks - 1. Caltrain California Avenue station. 2. <i>Must be combined with 2 track deep tunnel option.</i>	1. Caltrain California Avenue station. 2. Raise Oregon Expressway.	1. Caltrain California Avenue station. 2. Raise Oregon Expressway.	2 tracks - 1. Caltrain two tracks to remain at grade or aerial viaduct. 2. <i>Must be combined with 2 track aerial viaduct or at grade option.</i>	4 tracks - No notes 2 tracks - 1. <i>Must be combined with 2 track deep tunnel option.</i>	4 tracks - 1. Grade separation at East Meadow Drive and Charleston Road. 2 tracks - 1. Grade separation at East Meadow Drive and Charleston Road. 2. <i>Must be combined with 2 track deep tunnel option.</i>			2 tracks - 1. Caltrain two tracks to remain at grade or aerial viaduct. 2. <i>Must be combined with 2 track aerial viaduct or at grade option.</i>

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)				At-Grade (4 tracks)				Covered Trench (4 tracks)				Tunnel (HST only)			
Subsection 6			Base: 2009 (3rd Quarter)		A				A				A				A			
					Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
1 Double Track Section - Total			Mile	\$			1.21	\$ 2,545,726			0.00	\$ -			0	\$ -			0.00	\$ -
2 Double Track Section - On Structure			Mile	\$			0.00	\$ -			0.00	\$ -			0	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway			Mile	\$			0.00	\$ -			0.00	\$ -			0	\$ -			1.21	\$ 5,697,164
4 Double Track Section - In Trench			Mile	\$			0.00	\$ -			0.00	\$ -			0	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade			Mile	\$			0.000000	\$ -			1.21	\$ 5,091,452			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure			Mile	\$			0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway			Mile	\$			0	\$ -			0	\$ -			1.21	\$ 11,394,327			0.00	\$ -
Four-Track Section - In Trench			Mile	\$			0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
Single Track - Total																				
5 Single Track Section - At Grade			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0	\$ -
9 Freight Double Track - At Grade			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped			Acre	\$			9.55	\$ 88,013			16.16	\$ 148,945			16.16	\$ 148,945			0.00	\$ -
2 Total Cut			CY	\$			0.00	\$ -			0.00	\$ -			1042962.96	\$ 6,257,778			0.00	\$ -
3 Total Fill			CY	\$			0.00	\$ -			0.00	\$ -			521481.48	\$ 3,128,889			0.00	\$ -
4 Borrow			CY	\$			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil			CY	\$			0.00	\$ -			0.00	\$ -			521481.48	\$ 6,779,259			0.00	\$ -
6 Landscape erosion Control			Acre	\$			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)			Mile	\$			1.21	\$ 175,011			1.21	\$ 175,011			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities			5% Earthwork				\$	13,151			\$	16,198			\$	815,744			\$	-
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)			Mile	\$			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -
Standard Structure (4 tracks)			Mile	\$			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -
2 High Structure			Mile	\$				\$ -				\$ -				\$ -				\$ -
3 Long Span Structure			Mile	\$				\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary			Mile	\$				\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)			Mile	\$			0.02	\$ 1,743,360			0.02	\$ 1,743,360				\$ -			0.01	\$ 697,344
6 Twin Single Track Drill&Blast (<6 Miles)			Mile	\$				\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)			Mile	\$				\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)			Mile	\$				\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast			Mile	\$			0	\$ -			0	\$ -			0	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)			Mile	\$				\$ -				\$ -				\$ -			0.00	\$ -
Double Track TBM (<6 Miles)			Mile	\$				\$ -				\$ -				\$ -			1.21	\$ 129,257,348
Double Track TBM w/3rd Tube (>6 Miles)			Mile	\$				\$ -				\$ -				\$ -			0.00	\$ -
11 Seismic Chamber (Drill & Blast/Mined)			ea	\$				\$ -				\$ -				\$ -				\$ -
12 Crossovers			ea	\$				\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel			Mile	\$			0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (1000 ft+)			Mile	\$			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)			Mile	\$			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00	\$ -			0.00	\$ -
15 Trench Short (2 tracks) (<1000 ft)			Mile	\$				\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)			Mile	\$				\$ -				\$ -				\$ -				\$ -
16 Mechanical & Electrical for Tunnels			Mile	\$			0	\$ -			0	\$ -			1.21	\$ 14,362,065			1.21	\$ 14,362,065
17 Retaining Walls			Mile	\$			0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls			Mile	\$				\$ -				\$ -				\$ -				\$ -
19 Single Track Cut and Cover Subway			Mile	\$				\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast			Mile	\$				\$ -				\$ -			0.00	\$ -				\$ -
Four Track Mined (Soft Soil)			Mile	\$				\$ -				\$ -			0.00	\$ -			0.00	\$ -
Four Track TBM (<6 Miles)			Mile	\$				\$ -				\$ -				\$ -			0.00	\$ -
Four Track TBM w/3rd Tube (>6 Miles)			Mile	\$				\$ -				\$ -				\$ -				\$ -
Four Track Cut & Cover Tunnel			Mile	\$			0.00	\$ -			0.00	\$ -			1.21	\$ 318,172,315			0.00	\$ -
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)			ea	\$				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)			ea	\$			1	\$ 19,926,528			1	\$ 19,926,528				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)			ea	\$				\$ -				\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)			ea	\$				\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)			ea	\$				\$ -				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)			ea	\$				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)			ea	\$				\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)			ea	\$				\$ -				\$ -				\$ -				\$ -
7 Street Bridging HSR Trench			ea	\$				\$ -				\$ -			3	\$ 4,196,352				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (2 tracks)				At-Grade (4 tracks)				Covered Trench (4 tracks)				Tunnel (HST only)			
Subsection 6			Base: 2009 (3rd Quarter)	A				A				A				A				
				Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		
Subsection Details					Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1765 + 00	End: 1829 + 00	1.21 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
8	Minor Crossing Closures	ea	\$	87,040			\$	-			\$	-			\$	-			\$	-
Building Items																				
1	Intermediate Passenger Stations	Each	\$	-			\$	-			\$	-			\$	-			\$	-
2	Terminal Passenger Stations	Each	\$	-			\$	-			\$	-			\$	-			\$	-
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000		0	\$	-		1	\$	15,000,000			\$	-			\$	-
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000			\$	-			\$	-			\$	-			\$	-
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000			\$	-			\$	-			\$	-			\$	-
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000			\$	-			\$	-		1	\$	15,000,000		0	\$	-
3	Maintenance Facility	Each	\$	123,921,884			\$	-			\$	-			\$	-			\$	-
4	Parking - Structures	space	\$	-			\$	-			\$	-			\$	-			\$	-
5	Parking - At Grade	space	\$	-			\$	-			\$	-			\$	-			\$	-
Rail & Utility Relocation																				
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896			\$	-			\$	-			\$	-			\$	-
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896			\$	-			\$	-			\$	-			\$	-
3	Single Track Removal	Mile	\$	130,048			\$	-			\$	-			\$	-			\$	-
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			\$	-			\$	-			\$	-			\$	-
5	Major Utility Relocations - Urban	Mile	\$	1,084,416			\$	-			\$	-			\$	-			\$	-
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168			\$	-			\$	-			\$	-			\$	-
7	Major Utility Relocations - Suburban	Mile	\$	464,896			\$	-			\$	-			\$	-			\$	-
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720			\$	-			\$	-			\$	-			\$	-
ROW (Not Included)																				
ROW required for each segment																				
1	Dense Urban	Acre	\$	2,786,321			\$	-			\$	-			\$	-			\$	-
2	Urban	Acre	\$	1,371,510			\$	-			\$	-			\$	-			\$	-
3	Dense Suburban	Acre	\$	908,134			\$	-			\$	-			\$	-			\$	-
4	Suburban	Acre	\$	208,418			\$	-			\$	-			\$	-			\$	-
5	Undeveloped	Acre	\$	3,642			\$	-			\$	-			\$	-			\$	-
ROW required for Temp. Construction Easement																				
1	Dense Urban	Acre					\$	-			\$	-			\$	-			\$	-
2	Urban	Acre					\$	-			\$	-			\$	-			\$	-
3	Dense Suburban	Acre					\$	-			\$	-			\$	-			\$	-
4	Suburban	Acre					\$	-			\$	-			\$	-			\$	-
5	Undeveloped	Acre					\$	-			\$	-			\$	-			\$	-
Right-of-Way Required for Stations, Maintenance & Parking Facilities																				
6	Dense Urban	Acre	\$	2,786,321			\$	-			\$	-			\$	-			\$	-
7	Urban	Acre	\$	1,371,510			\$	-			\$	-			\$	-			\$	-
8	Dense Suburban	Acre	\$	908,134			\$	-			\$	-			\$	-			\$	-
9	Suburban	Acre	\$	208,418			\$	-			\$	-			\$	-			\$	-
10	Undeveloped	Acre	\$	3,642			\$	-			\$	-			\$	-			\$	-
Environmental Mitigation = 3% Line Costs							\$	734,754			\$	1,263,045			\$	11,407,670			\$	4,500,418
System Elements																				
1	Signaling (ATC)	Mile	\$	2,070,000		1.21	\$	2,509,091		1.21	\$	2,509,091		1.21	\$	2,509,091		1.21	\$	2,509,091
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000		1.21	\$	654,545		1.21	\$	654,545		1.21	\$	654,545		1.21	\$	654,545
3	Wayside Protection System	Mile	\$	108,000		1.21	\$	130,909		1.21	\$	130,909		1.21	\$	130,909		1.21	\$	130,909
Electrification Items																				
1	Traction Power supply	Mile	\$	1,170,000		1.21	\$	1,418,182		1.21	\$	1,418,182		1.21	\$	1,418,182		1.21	\$	1,418,182
2	Traction Power Distribution	Mile	\$	1,485,000		1.21	\$	1,800,000		1.21	\$	1,800,000		1.21	\$	1,800,000		1.21	\$	1,800,000
Subtotal							\$	31,739,270			\$	49,877,266			\$	398,176,072			\$	161,027,066
Program Implementation Costs (per screening)							\$	8,093,514			\$	12,718,703			\$	101,534,898			\$	41,061,902
Program Implementation Costs																				
Contingencies (per screening) (25%)							\$	7,934,818			\$	12,469,317			\$	99,544,018			\$	40,256,766
Subtotal							\$	47,767,602			\$	75,065,286			\$	599,254,989			\$	242,345,734
Subtotal (Rounded)							\$	48,000,000			\$	75,000,000			\$	599,000,000			\$	242,000,000

COST ELEMENTS				UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)				Elevated Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)				
Subsection 6					Base: 2009 (3rd Quarter)	B				B				B				B				
						Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)							Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)							Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)							Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)							Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)							Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles	
Four Track Elevated (Mile)							Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)							Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)							Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
							Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			Start: 0 + 00		0.00 Miles			

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)				Elevated Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)			
Subsection 6			Base: 2009 (3rd Quarter)	B				B				B				B				
				Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -				\$ -	
Building Items																				
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -	
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -	
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -				\$ -	
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -				\$ -	
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -				\$ -	
Rail & Utility Relocation																				
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -	
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -	
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -				\$ -	
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -				\$ -	
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -				\$ -	
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -				\$ -	
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -				\$ -	
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -				\$ -	
ROW (Not Included)																				
ROW required for each segment																				
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -	
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -	
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -	
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -	
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -	
ROW required for Temp. Construction Easement																				
1	Dense Urban	Acre					\$ -				\$ -				\$ -				\$ -	
2	Urban	Acre					\$ -				\$ -				\$ -				\$ -	
3	Dense Suburban	Acre					\$ -				\$ -				\$ -				\$ -	
4	Suburban	Acre					\$ -				\$ -				\$ -				\$ -	
5	Undeveloped	Acre					\$ -				\$ -				\$ -				\$ -	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																				
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -	
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -	
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -	
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -	
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -	
	Environmental Mitigation = 3% Line Costs						\$ 811,490				\$ 1,265,304				\$ 645,415				\$ 689,454	
System Elements																				
1	Signaling (ATC)	Mile	\$ 2,070,000			0.68	\$ 1,411,364			0.68	\$ 1,411,364			0.68	\$ 1,411,364			0.68	\$ 1,411,364	
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			0.68	\$ 368,182			0.68	\$ 368,182			0.68	\$ 368,182			0.68	\$ 368,182	
3	Wayside Protection System	Mile	\$ 108,000			0.68	\$ 73,636			0.68	\$ 73,636			0.68	\$ 73,636			0.68	\$ 73,636	
Electrification Items																				
1	Traction Power supply	Mile	\$ 1,170,000			0.68	\$ 797,727			0.68	\$ 797,727			0.68	\$ 797,727			0.68	\$ 797,727	
2	Traction Power Distribution	Mile	\$ 1,485,000			0.68	\$ 1,012,500			0.68	\$ 1,012,500			0.68	\$ 1,012,500			0.68	\$ 1,012,500	
	Subtotal						\$ 31,524,557				\$ 47,105,528				\$ 25,822,672				\$ 27,334,670	
	Program Implementation Costs (per screening)						\$ 8,038,762				\$ 12,011,910				\$ 6,584,781				\$ 6,970,341	
	Program Implementation Costs																			
	Contingencies (per screening) (25%)						\$ 7,881,139				\$ 11,776,382				\$ 6,455,668				\$ 6,833,667	
	Subtotal						\$ 47,444,458				\$ 70,893,820				\$ 38,863,121				\$ 41,138,678	
	Subtotal (Rounded)						\$ 47,000,000				\$ 71,000,000				\$ 39,000,000				\$ 41,000,000	



COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench (4 tracks)				Tunnel (HST only)				
Subsection 6			Base: 2009 (3rd Quarter)	B				B				B					
				Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles			
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles			
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Trench (Mile)				Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Section - Total																	
1	Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$	-			0.00	\$	-	0.00	\$	-
2	Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-	0.00	\$	-
3	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-	0.68	\$	3,196,109
4	Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-	0.00	\$	-
Four Track Section - Total																	
Four-track Section - At Grade			Mile	\$	4,200,448			0.00	\$	-		0.00	\$	-	0.00	\$	-
Four-Track Section - On Structure			Mile	\$	9,400,320			0.00	\$	-		0.00	\$	-	0.00	\$	-
Four-Track Section - In Tunnel or Subway			Mile	\$	9,400,320			0.00	\$	-		0.68	\$	6,409,309	0.00	\$	-
Four-Track Section - In Trench			Mile	\$	9,400,320			0.68	\$	6,409,309		0.00	\$	-	0.00	\$	-
Single Track - Total																	
5	Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-	0	\$	-
6	Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-			0	\$	-	0	\$	-
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-			0	\$	-	0	\$	-
8	Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-			0	\$	-	0	\$	-
9	Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-			0	\$	-	0	\$	-
10	Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-	0	\$	-
Earthwork Items																	
1	Site Preparation - Undeveloped	Acre	\$	9,216			9.09	\$	83,782			9.09	\$	83,782	0.00	\$	-
2	Total Cut	CY	\$	6.00			220000.00	\$	1,320,000			586666.67	\$	3,520,000	0.00	\$	-
3	Total Fill	CY	\$	6.00			0.00	\$	-			293333.33	\$	1,760,000	0.00	\$	-
4	Borrow	CY	\$	13.00			0.00	\$	-			0.00	\$	-	0.00	\$	-
5	Spoil	CY	\$	13.00			220000.00	\$	2,860,000			293333.33	\$	3,813,333	0.00	\$	-
6	Landscape erosion Control	Acre	\$	6,144			9.09	\$	55,855			0.00	\$	-	0.00	\$	-
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.68	\$	98,444			0.00	\$	-	0.00	\$	-
8	Special Drainage Facilities	5% Earthwork						\$	220,904				\$	458,856		\$	-
Structures, Tunnels, Walls																	
1	Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00 Miles	\$	-			0.00 Miles	\$	-	0.00 Miles	\$	-
	Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00 Miles					0.00 Miles			0.00 Miles		
2	High Structure	Mile	\$	40,424,448				\$	-				\$	-		\$	-
3	Long Span Structure	Mile	\$	61,919,232				\$	-				\$	-		\$	-
4	Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-				\$	-		\$	-
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-			0.01	\$	697,344	0.01	\$	697,344
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-				\$	-		\$	-
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-		\$	-
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-				\$	-		\$	-
9	Double Track Drill & Blast	Mile	\$	146,887,680			0	\$	-			0	\$	-	0.00	\$	-
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$	-				\$	-	0.00	\$	-
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312											0.68	\$	72,707,258
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896													
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-				\$	-		\$	-
12	Crossovers	ea	\$	442,368				\$	-				\$	-		\$	-
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-			0	\$	-	0.00	\$	-
14	Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00	\$	-			0.00	\$	-	0.00	\$	-
	Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.68	\$	58,831,593			0.00	\$	-	0.00	\$	-
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-				\$	-		\$	-
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856													
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			0.00	\$	-			0.68	\$	8,078,662	0.68	\$	8,078,662
17	Retaining Walls	Mile	\$	8,613,888			0.00	\$	-			0.00	\$	-	0.00	\$	-
18	Containment Walls	Mile	\$	5,907,456			0.00	\$	-				\$	-		\$	-
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-				\$	-		\$	-
	Four Track Drill & Blast	Mile	\$	293,775,360				\$	-				\$	-		\$	-
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$	-				\$	-	0.00	\$	-
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624											0.00	\$	-
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792												\$	-
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-			0.68	\$	178,971,927	0.00	\$	-
Grade Separations																	
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-				\$	-		\$	-
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-				\$	-		\$	-
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$	-				\$	-		\$	-
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-				\$	-		\$	-
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$	-				\$	-		\$	-
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-				\$	-		\$	-
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-				\$	-		\$	-
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-				\$	-		\$	-
7	Street Bridging HSR Trench	ea	\$	1,398,784			1	\$	1,398,784			0	\$	-	0	\$	-

COST ELEMENTS		UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench (4 tracks)				Tunnel (HST only)			
Subsection 6		Base: 2009 (3rd Quarter)		B				B				B			
				Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles	
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 1829 + 00	End: 1865 + 00	0.68 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -
Building Items															
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -				\$ -
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -
Rail & Utility Relocation															
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -
ROW (Not Included)															
ROW required for each segment															
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -
ROW required for Temp. Construction Easement															
1	Dense Urban	Acre					\$ -				\$ -				\$ -
2	Urban	Acre					\$ -				\$ -				\$ -
3	Dense Suburban	Acre					\$ -				\$ -				\$ -
4	Suburban	Acre					\$ -				\$ -				\$ -
5	Undeveloped	Acre					\$ -				\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities															
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -
	Environmental Mitigation = 3% Line Costs						\$ 2,138,360				\$ 6,113,796				\$ 2,540,381
System Elements															
1	Signaling (ATC)	Mile	\$ 2,070,000			0.68	\$ 1,411,364			0.68	\$ 1,411,364			0.68	\$ 1,411,364
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			0.68	\$ 368,182			0.68	\$ 368,182			0.68	\$ 368,182
3	Wayside Protection System	Mile	\$ 108,000			0.68	\$ 73,636			0.68	\$ 73,636			0.68	\$ 73,636
Electrification Items															
1	Traction Power supply	Mile	\$ 1,170,000			0.68	\$ 797,727			0.68	\$ 797,727			0.68	\$ 797,727
2	Traction Power Distribution	Mile	\$ 1,485,000			0.68	\$ 1,012,500			0.68	\$ 1,012,500			0.68	\$ 1,012,500
	Subtotal						\$ 77,080,439				\$ 213,570,419				\$ 90,883,163
	Program Implementation Costs						\$ 19,655,512				\$ 54,460,457				\$ 23,175,207
	Contingencies (per screening) (25%)						\$ 19,270,110				\$ 53,392,605				\$ 22,720,791
	Subtotal						\$ 116,006,061				\$ 321,423,480				\$ 136,779,160
	Subtotal (Rounded)						\$ 116,000,000				\$ 321,000,000				\$ 137,000,000

COST ELEMENTS				UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)				Elevated Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)			
Subsection 6					Base: 2009 (3rd Quarter)	C				C				C				C			
						Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)						Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles	
Four Track Elevated (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)						Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
1 Double Track Section - Total																					
1 Double Track Section - At Grade					Mile			0	\$ -			0	\$ -			1.42	\$ 2,983,273			0.00	\$ -
2 Double Track Section - On Structure					Mile			1.42	\$ 6,676,364			0	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway					Mile			0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench					Mile			0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																					
Four-track Section - At Grade					Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			1.42	\$ 5,966,545
Four-Track Section - On Structure					Mile			0.00	\$ -			1.42	\$ 13,352,727			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Trench					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
Single Track - Total																					
5 Single Track Section - At Grade					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
9 Freight Double Track - At Grade					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																					
1 Site Preparation - Undeveloped					Acre			11.19	\$ 103,140			18.94	\$ 174,545			11.19	\$ 103,140			18.94	\$ 174,545
2 Total Cut					CY			0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
3 Total Fill					CY			0.00	\$ -			0.00	\$ -			0	\$ -			0	\$ -
4 Borrow					CY			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil					CY			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Landscape erosion Control					Acre			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)					Mile			0.00	\$ -			0.00	\$ -			1.42	\$ 205,091			1.42	\$ 205,091
8 Special Drainage Facilities					5% Earthwork			\$ 5,157				\$ 8,727			\$ 15,412			\$ 18,982			
Structures, Tunnels, Walls																					
1 Standard Structure (2 tracks)					Mile			1.42	\$ 49,677,091			0.00	\$ -			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)					Mile			0.00				1.42	\$ 74,515,636			0.00				0.00	
2 High Structure					Mile				\$ -				\$ -				\$ -				\$ -
3 Long Span Structure					Mile				\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary					Mile				\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)					Mile				\$ -				\$ -			0.01	\$ 871,680			0.01	\$ 871,680
6 Twin Single Track Drill&Blast (<6 Miles)					Mile				\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)					Mile				\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)					Mile				\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Double Track Mined (Soft Soil)					Mile				\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)					Mile								\$ -				\$ -				\$ -
Double Track TBM w/3rd Tube (>6 Miles)					Mile								\$ -				\$ -				\$ -
11 Seismic Chamber (Drill & Blast/Mined)					ea				\$ -				\$ -				\$ -				\$ -
12 Crossovers					ea				\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
14 Trench Long (2 tracks) (1000 ft+)					Mile			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -
Trench Long (4 tracks) (1000 ft+)					Mile			0.00 Miles				0.00 Miles				0.00 Miles				0.00 Miles	
15 Trench Short (2 tracks) (<1000 ft)					Mile				\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)					Mile				\$ 118,265,856												
16 Mechanical & Electrical for Tunnels					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
17 Retaining Walls					Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
18 Containment Walls					Mile				\$ -				\$ -				\$ -				\$ -
19 Single Track Cut and Cover Subway					Mile				\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast					Mile				\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)					Mile				\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)					Mile				\$ 213,274,624				\$ -				\$ -				\$ -
Four Track TBM w/3rd Tube (>6 Miles)					Mile				\$ 353,441,792				\$ -				\$ -				\$ -
Four Track Cut & Cover Tunnel					Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																					
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)					ea				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)					ea				\$ -				\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)					ea				\$ -				\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)					ea				\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)					ea				\$ -				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)					ea				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)					ea				\$ 2,850,816				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)					ea				\$ 3,171,328				\$ -				\$ -				\$ -
7 Street Bridging HSR Trench					ea				\$ 1,398,784				\$ -				\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)			Elevated Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)						
Subsection 6			Base: 2009 (3rd Quarter)	C			C				C				C							
				Start: 1865 + 00	End: 1940 + 00	1.42 Miles	Start: 1865 + 00	End: 1940 + 00	1.42 Miles	Start: 1865 + 00	End: 1940 + 00	1.42 Miles	Start: 1865 + 00	End: 1940 + 00	1.42 Miles							
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles			
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -				\$ -			
Building Items																						
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -			
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -			
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -				\$ -			0	\$ -			1	\$ 15,000,000			
	Caltrain Passenger Station - On Structure	Each	\$15,000,000			1	\$ 15,000,000			1	\$ 15,000,000				\$ -				\$ -			
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -			
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -			
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -				\$ -			
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -				\$ -			
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -				\$ -			
Rail & Utility Relocation																						
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -			
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -			
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -				\$ -			
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -				\$ -			
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -				\$ -			
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -				\$ -			
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -				\$ -			
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -				\$ -			
ROW (Not Included)																						
ROW required for each segment																						
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -			
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -			
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -			
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -			
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -			
ROW required for Temp. Construction Easement																						
1	Dense Urban	Acre					\$ -				\$ -				\$ -				\$ -			
2	Urban	Acre					\$ -				\$ -				\$ -				\$ -			
3	Dense Suburban	Acre					\$ -				\$ -				\$ -				\$ -			
4	Suburban	Acre					\$ -				\$ -				\$ -				\$ -			
5	Undeveloped	Acre					\$ -				\$ -				\$ -				\$ -			
Right-of-Way Required for Stations, Maintenance & Parking Facilities																						
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -			
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -			
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -			
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -			
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -			
Environmental Mitigation = 3% Line Costs							\$ 2,143,853				\$ 3,091,549				\$ 125,358				\$ 667,105			
System Elements																						
1	Signaling (ATC)	Mile	\$ 2,070,000			1.42	\$ 2,940,341			1.42	\$ 2,940,341			1.42	\$ 2,940,341			1.42	\$ 2,940,341			
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.42	\$ 767,045			1.42	\$ 767,045			1.42	\$ 767,045			1.42	\$ 767,045			
3	Wayside Protection System	Mile	\$ 108,000			1.42	\$ 153,409			1.42	\$ 153,409			1.42	\$ 153,409			1.42	\$ 153,409			
Electrification Items																						
1	Traction Power supply	Mile	\$ 1,170,000			1.42	\$ 1,661,932			1.42	\$ 1,661,932			1.42	\$ 1,661,932			1.42	\$ 1,661,932			
2	Traction Power Distribution	Mile	\$ 1,485,000			1.42	\$ 2,109,375			1.42	\$ 2,109,375			1.42	\$ 2,109,375			1.42	\$ 2,109,375			
Subtotal							\$ 81,237,707				\$ 113,775,288				\$ 11,936,056				\$ 30,536,051			
Program Implementation Costs (per screening)							\$ 20,715,615				\$ 29,012,698				\$ 3,043,694				\$ 7,786,693			
Program Implementation Costs																						
Contingencies (per screening) (25%)							\$ 20,309,427				\$ 28,443,822				\$ 2,984,014				\$ 7,634,013			
Subtotal							\$ 122,262,749					\$ 171,231,808					\$ 17,963,764					\$ 45,956,757
Subtotal (Rounded)							\$122,000,000					\$171,000,000					\$ 18,000,000					\$ 46,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench				Tunnel (HST only)			
Subsection 6			Base: 2009 (3rd Quarter)		C				C				C			
					Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
1 Double Track Section - Total			Mile	\$ 2,100,224			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure			Mile	\$ 4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway			Mile	\$ 4,700,160			0.00	\$ -			0.00	\$ -			1.42	\$ 6,676,364
4 Double Track Section - In Trench			Mile	\$ 4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																
Four-track Section - At Grade			Mile	\$ 4,200,448			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure			Mile	\$ 9,400,320			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway			Mile	\$ 9,400,320			0.00	\$ -			1.42	\$ 13,352,727			0.00	\$ -
Four-Track Section - In Trench			Mile	\$ 9,400,320			1.42	\$ 13,352,727			0.00	\$ -			0.00	\$ -
Single Track - Total																
5 Single Track Section - At Grade			Mile	\$ 1,549,312			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure			Mile	\$ 2,350,080			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway			Mile	\$ 2,350,080			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench			Mile	\$ 2,350,080			0	\$ -			0	\$ -			0	\$ -
9 Freight Double Track - At Grade			Mile	\$ 2,839,552			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade			Mile	\$ 1,549,312			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																
1 Site Preparation - Undeveloped			Acre	\$ 9,216			18.94	\$ 174,545			18.94	\$ 174,545			0.00	\$ -
2 Total Cut			CY	\$ 6.00			458333.33	\$ 2,750,000			1222222.22	\$ 7,333,333			0.00	\$ -
3 Total Fill			CY	\$ 6.00			0.00	\$ -			611111.11	\$ 3,666,667			0.00	\$ -
4 Borrow			CY	\$ 13.00			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil			CY	\$ 13.00			458333.33	\$ 5,958,333			611111.11	\$ 7,944,444			0.00	\$ -
6 Landscape erosion Control			Acre	\$ 6,144			18.94	\$ 116,364			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)			Mile	\$ 144,384			1.42	\$ 205,091			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities			5% Earthwork					\$ 460,217				\$ 955,949				\$ -
Structures, Tunnels, Walls																
1 Standard Structure (2 tracks)			Mile	\$ 34,972,672			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -
Standard Structure (4 tracks)			Mile	\$ 52,459,008			0.00 Miles				0.00 Miles				0.00 Miles	
2 High Structure			Mile	\$ 40,424,448				\$ -				\$ -				\$ -
3 Long Span Structure			Mile	\$ 61,919,232				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary			Mile	\$ 85,342,208				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)			Mile	\$ 92,049,408				\$ -			0.01	\$ 697,344			0.01	\$ 697,344
6 Twin Single Track Drill&Blast (<6 Miles)			Mile	\$ 142,731,264				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)			Mile	\$ 106,637,312				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)			Mile	\$ 176,720,896				\$ -				\$ -				\$ -
9 Double Track Drill & Blast			Mile	\$ 146,887,680			0	\$ -			0	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)			Mile	\$ 79,200,000				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)			Mile	\$ 106,637,312											1.42 Miles	\$ 151,473,455
Double Track TBM w/3rd Tube (>6 Miles)			Mile	\$ 176,720,896												
11 Seismic Chamber (Drill & Blast/Mined)			ea	\$ 126,205,952				\$ -				\$ -				\$ -
12 Crossovers			ea	\$ 442,368				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel			Mile	\$ 131,246,080			0.00	\$ -			0	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (1000 ft+)			Mile	\$ 57,524,224			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)			Mile	\$ 86,286,336			1.42	\$ 122,565,818			0.00	\$ -			0.00	\$ -
15 Trench Short (2 tracks) (<1000 ft)			Mile	\$ 78,843,904				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)			Mile	\$ 118,265,856												
16 Mechanical & Electrical for Tunnels			Mile	\$ 11,848,704			0.00	\$ -			1.42	\$ 16,830,545			1.42	\$ 16,830,545
17 Retaining Walls			Mile	\$ 8,613,888			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls			Mile	\$ 5,907,456			0.00	\$ -				\$ -				\$ -
19 Single Track Cut and Cover Subway			Mile	\$ 131,246,080				\$ -				\$ -				\$ -
Four Track Drill & Blast			Mile	\$ 293,775,360				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)			Mile	\$ 158,400,000				\$ -				\$ -			0.00	\$ -
Four Track TBM (<6 Miles)			Mile	\$ 213,274,624											0.00	\$ -
Four Track TBM w/3rd Tube (>6 Miles)			Mile	\$ 353,441,792												\$ -
Four Track Cut & Cover Tunnel			Mile	\$ 262,492,160			0.00	\$ -			1.42	\$ 372,858,182			0.00	\$ -
Grade Separations																
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)			ea	\$ 13,284,352				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)			ea	\$ 19,926,528				\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)			ea	\$ 2,759,680				\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)			ea	\$ 2,029,568				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)			ea	\$ 3,563,520				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)			ea	\$ 3,593,216				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)			ea	\$ 2,850,816				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)			ea	\$ 3,171,328				\$ -				\$ -				\$ -
7 Street Bridging HSR Trench			ea	\$ 1,398,784			1	\$ 1,398,784			1	\$ 1,398,784			0	\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench				Tunnel (HST only)			
Subsection 6			Base: 2009 (3rd Quarter)	C				C				C				
				Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 1865 + 00	End: 1940 + 00	1.42 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -	
Building Items																
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -	
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -				\$ -	
1	Caltrain Passenger Station - In Trench	Each	\$15,000,000			1	\$ 15,000,000			1	\$ 15,000,000			0	\$ -	
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -	
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -	
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -	
Rail & Utility Relocation																
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -	
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -	
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -	
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -	
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -	
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -	
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -	
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -	
ROW (Not Included)																
ROW required for each segment																
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -	
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -	
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -	
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -	
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -	
ROW required for Temp. Construction Easement																
1	Dense Urban	Acre					\$ -				\$ -				\$ -	
2	Urban	Acre					\$ -				\$ -				\$ -	
3	Dense Suburban	Acre					\$ -				\$ -				\$ -	
4	Suburban	Acre					\$ -				\$ -				\$ -	
5	Undeveloped	Acre					\$ -				\$ -				\$ -	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -	
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -	
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -	
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -	
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -	
Environmental Mitigation = 3% Line Costs							\$ 4,859,456				\$ 13,206,376				\$ 5,270,331	
System Elements																
1	Signaling (ATC)	Mile	\$ 2,070,000			1.42	\$ 2,940,341			1.42	\$ 2,940,341			1.42	\$ 2,940,341	
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.42	\$ 767,045			1.42	\$ 767,045			1.42	\$ 767,045	
3	Wayside Protection System	Mile	\$ 108,000			1.42	\$ 153,409			1.42	\$ 153,409			1.42	\$ 153,409	
Electrification Items																
1	Traction Power supply	Mile	\$ 1,170,000			1.42	\$ 1,661,932			1.42	\$ 1,661,932			1.42	\$ 1,661,932	
2	Traction Power Distribution	Mile	\$ 1,485,000			1.42	\$ 2,109,375			1.42	\$ 2,109,375			1.42	\$ 2,109,375	
	Subtotal						\$ 174,473,438				\$ 461,051,000				\$ 188,580,141	
	Program Implementation Costs (per screening)						\$ 44,490,727				\$ 117,568,005				\$ 48,087,936	
	Program Implementation Costs															
	Contingencies (per screening) (25%)						\$ 43,618,360				\$ 115,262,750				\$ 47,145,035	
	Subtotal						\$ 262,582,524				\$ 693,881,755				\$ 283,813,112	
	Subtotal (Rounded)						\$ 263,000,000				\$ 694,000,000				\$ 284,000,000	



COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)				Elevated Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)			
Subsection 6				Base: 2009 (3rd Quarter)	D				D				D				D			
					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles	
							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Subsection Details					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track At-Grade (Mile)					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Section - Total																				
1 Double Track Section - At Grade	Mile	\$	2,100,224				0	\$ -			0	\$ -			0.57	\$ 1,193,309			0.00	\$ -
2 Double Track Section - On Structure	Mile	\$	4,700,160				0.57	\$ 2,670,545			0	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160				0	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.57	\$ 2,386,618
Four-Track Section - On Structure	Mile	\$	9,400,320				0.00	\$ -			0.57	\$ 5,341,091			0	\$ -			0	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Single Track - Total																				
5 Single Track Section - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Freight Double Track - At Grade							0	\$ -			0	\$ -			0	\$ -			0	\$ -
9 Freight Double Track - At Grade	Mile	\$	2,839,552				0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312				0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped	Acre	\$	9,216				4.48	\$ 41,256			7.58	\$ 69,818			0.00	\$ -			0.00	\$ -
2 Total Cut	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Total Fill	CY	\$	6.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
4 Borrow	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil	CY	\$	13.00				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00	\$ -			0.00	\$ -			0.57	\$ 82,036			0.57	\$ 82,036
8 Special Drainage Facilities	5% Earthwork							\$ 2,063				\$ 3,491				\$ 4,102				\$ 4,102
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)	Mile	\$	34,972,672				0.57	\$ 19,870,836			0.00	\$ -			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00				0.57	\$ 29,806,255			0.00				0.00	
2 High Structure	Mile	\$	40,424,448					\$ -				\$ -				\$ -				\$ -
3 Long Span Structure	Mile	\$	61,919,232					\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208					\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408					\$ -				\$ -			0.01	\$ 871,680			0.01	\$ 871,680
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680				0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000					\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312					\$ -				\$ -				\$ -				\$ -
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896					\$ -				\$ -				\$ -				\$ -
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$ -				\$ -				\$ -				\$ -
12 Crossovers	ea	\$	442,368					\$ -				\$ -				\$ -				\$ -
Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				0	\$ -			0	\$ -			0	\$ -			0	\$ -
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224				0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336				0.00 Miles				0.00 Miles				0.00 Miles				0.00 Miles	
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856																	
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				0	\$ -			0	\$ -			0	\$ -			0	\$ -
17 Retaining Walls	Mile	\$	8,613,888				0	\$ -			0	\$ -			0	\$ -			0	\$ -
18 Containment Walls	Mile	\$	5,907,456					\$ -				\$ -				\$ -				\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360					\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624					\$ -				\$ -				\$ -				\$ -
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792					\$ -				\$ -				\$ -				\$ -
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528					\$ -				\$ -			2	\$ 39,853,056			2	\$ 39,853,056
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680					\$ -				\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$ -				\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$ -				\$ -				\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)				Elevated Viaduct (4 tracks)				At-Grade (2 tracks)				At-Grade (4 tracks)					
Subsection 6				Base: 2009 (3rd Quarter)	D				D				D				D					
					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles			
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles			
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-				\$	-			\$	-			\$	-	
8 Minor Crossing Closures	ea	\$	87,040				\$	-				\$	-			\$	-			\$	-	
Building Items																						
1 Intermediate Passenger Stations	Each	\$	-				\$	-				\$	-			\$	-			\$	-	
2 Terminal Passenger Stations	Each	\$	-				\$	-				\$	-			\$	-			\$	-	
Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-	
Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-	
Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-				\$	-			\$	-			\$	-	
3 Maintenance Facility	Each	\$	123,921,884				\$	-				\$	-			\$	-			\$	-	
4 Parking - Structures	space	\$	-				\$	-				\$	-			\$	-			\$	-	
5 Parking - At Grade	space	\$	-				\$	-				\$	-			\$	-			\$	-	
Rail & Utility Relocation																						
1 Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-				\$	-			\$	-			\$	-	
2 Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-				\$	-			\$	-			\$	-	
3 Single Track Removal	Mile	\$	130,048				\$	-				\$	-			\$	-			\$	-	
4 Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-				\$	-			\$	-			\$	-	
5 Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-				\$	-			\$	-			\$	-	
6 Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-				\$	-			\$	-			\$	-	
7 Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-				\$	-			\$	-			\$	-	
8 Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-				\$	-			\$	-			\$	-	
ROW (Not Included)																						
ROW required for each segment																						
1 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-			\$	-			\$	-	
2 Urban	Acre	\$	1,371,510				\$	-				\$	-			\$	-			\$	-	
3 Dense Suburban	Acre	\$	908,134				\$	-				\$	-			\$	-			\$	-	
4 Suburban	Acre	\$	208,418				\$	-				\$	-			\$	-			\$	-	
5 Undeveloped	Acre	\$	3,642				\$	-				\$	-			\$	-			\$	-	
ROW required for Temp. Construction Easement																						
1 Dense Urban	Acre						\$	-				\$	-			\$	-			\$	-	
2 Urban	Acre						\$	-				\$	-			\$	-			\$	-	
3 Dense Suburban	Acre						\$	-				\$	-			\$	-			\$	-	
4 Suburban	Acre						\$	-				\$	-			\$	-			\$	-	
5 Undeveloped	Acre						\$	-				\$	-			\$	-			\$	-	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																						
6 Dense Urban	Acre	\$	2,786,321				\$	-				\$	-			\$	-			\$	-	
7 Urban	Acre	\$	1,371,510				\$	-				\$	-			\$	-			\$	-	
8 Dense Suburban	Acre	\$	908,134				\$	-				\$	-			\$	-			\$	-	
9 Suburban	Acre	\$	208,418				\$	-				\$	-			\$	-			\$	-	
10 Undeveloped	Acre	\$	3,642				\$	-				\$	-			\$	-			\$	-	
Environmental Mitigation = 3% Line Costs								\$	677,541				\$	1,056,620				\$	1,260,125		\$	1,295,925
System Elements																						
1 Signaling (ATC)	Mile	\$	2,070,000			0.57	\$	1,176,136			0.57	\$	1,176,136			0.57	\$	1,176,136		0.57	\$	1,176,136
2 Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.57	\$	306,818			0.57	\$	306,818			0.57	\$	306,818		0.57	\$	306,818
3 Wayside Protection System	Mile	\$	108,000			0.57	\$	61,364			0.57	\$	61,364			0.57	\$	61,364		0.57	\$	61,364
Electrification Items																						
1 Traction Power supply	Mile	\$	1,170,000			0.57	\$	664,773			0.57	\$	664,773			0.57	\$	664,773		0.57	\$	664,773
2 Traction Power Distribution	Mile	\$	1,485,000			0.57	\$	843,750			0.57	\$	843,750			0.57	\$	843,750		0.57	\$	843,750
Subtotal							\$	26,315,083				\$	39,330,115				\$	46,317,150			\$	47,546,258
Program Implementation Costs (per screening)							\$	6,710,346				\$	10,029,179				\$	11,810,873			\$	12,124,296
Program Implementation Costs																						
Contingencies (per screening) (25%)							\$	6,578,771				\$	9,832,529				\$	11,579,287			\$	11,886,565
Subtotal							\$	39,604,200				\$	59,191,823				\$	69,707,310			\$	71,557,118
Subtotal (Rounded)							\$	40,000,000				\$	59,000,000				\$	70,000,000			\$	72,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench				Tunnel (HST only)				
Subsection 6				Base: 2009 (3rd Quarter)	D				D				D				
					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
1 Double Track Section - Total							0.00	\$	-			0.00	\$	-	0.00	\$	-
2 Double Track Section - On Structure			Mile	\$	2,100,224		0.00	\$	-			0.00	\$	-	0.00	\$	-
3 Double Track Section - In Tunnel or Subway			Mile	\$	4,700,160		0.00	\$	-			0.00	\$	-	0.57	\$	2,670,545
4 Double Track Section - In Trench			Mile	\$	4,700,160		0.00	\$	-			0.00	\$	-	0.00	\$	-
Four Track Section - Total																	
Four-track Section - At Grade			Mile	\$	4,200,448		0.00	\$	-			0.00	\$	-	0.00	\$	-
Four-Track Section - On Structure			Mile	\$	9,400,320		0.00	\$	-			0.00	\$	-	0.00	\$	-
Four-Track Section - In Tunnel or Subway			Mile	\$	9,400,320		0.00	\$	-			0.57	\$	5,341,091	0.00	\$	-
Four-Track Section - In Trench			Mile	\$	9,400,320		0.57	\$	5,341,091			0.00	\$	-	0.00	\$	-
Single Track - Total																	
5 Single Track Section - At Grade			Mile	\$	1,549,312		0	\$	-			0	\$	-	0	\$	-
6 Single Track Section - On structure			Mile	\$	2,350,080		0	\$	-			0	\$	-	0	\$	-
7 Single Track Section - In Tunnel or Subway			Mile	\$	2,350,080		0	\$	-			0	\$	-	0	\$	-
8 Single Track Section - In Trench			Mile	\$	2,350,080		0	\$	-			0	\$	-	0	\$	-
9 Freight Double Track - At Grade			Mile	\$	2,839,552		0	\$	-			0	\$	-	0	\$	-
10 Freight Single Track - At Grade			Mile	\$	1,549,312		0	\$	-			0	\$	-	0	\$	-
Earthwork Items																	
1 Site Preparation - Undeveloped			Acre	\$	9,216		7.58	\$	69,818			7.58	\$	69,818	0.00	\$	-
2 Total Cut			CY	\$	6.00		488888.89	\$	2,933,333			488888.89	\$	2,933,333	0.00	\$	-
3 Total Fill			CY	\$	6.00		0.00	\$	-			244444.44	\$	1,466,667	0.00	\$	-
4 Borrow			CY	\$	13.00		0.00	\$	-			0.00	\$	-	0.00	\$	-
5 Spoil			CY	\$	13.00		488888.89	\$	6,355,556			244444.44	\$	3,177,778	0.00	\$	-
6 Landscape erosion Control			Acre	\$	6,144		7.58	\$	46,545			0.00	\$	-	0.00	\$	-
7 Security Fencing (Both sides of ROW)			Mile	\$	144,384		0.57	\$	82,036			0.00	\$	-	0.00	\$	-
8 Special Drainage Facilities			5% Earthwork					\$	474,364				\$	382,380		\$	-
Structures, Tunnels, Walls																	
1 Standard Structure (2 tracks)			Mile	\$	34,972,672		0.00 Miles	\$	-			0.00 Miles	\$	-	0.00 Miles	\$	-
Standard Structure (4 tracks)			Mile	\$	52,459,008		0.00 Miles					0.00 Miles			0.00 Miles		
2 High Structure			Mile	\$	40,424,448			\$	-				\$	-		\$	-
3 Long Span Structure			Mile	\$	61,919,232			\$	-				\$	-		\$	-
4 Waterway Crossing - Primary			Mile	\$	85,342,208			\$	-				\$	-		\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)			Mile	\$	92,049,408		0.01	\$	697,344			0.01	\$	697,344	0.01	\$	697,344
6 Twin Single Track Drill&Blast (<6 Miles)			Mile	\$	142,731,264			\$	-				\$	-		\$	-
7 Twin Single Track TBM (<6 Miles)			Mile	\$	106,637,312			\$	-				\$	-		\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)			Mile	\$	176,720,896			\$	-				\$	-		\$	-
9 Double Track Drill & Blast			Mile	\$	146,887,680		0	\$	-			0	\$	-	0.00	\$	-
10 Double Track Mined (Soft Soil)			Mile	\$	79,200,000			\$	-				\$	-	0.00	\$	-
Double Track TBM (<6 Miles)			Mile	\$	106,637,312									0.57	\$	60,589,382	
Double Track TBM w/3rd Tube (>6 Miles)			Mile	\$	176,720,896												
11 Seismic Chamber (Drill & Blast/Mined)			ea	\$	126,205,952			\$	-				\$	-		\$	-
12 Crossovers			ea	\$	442,368			\$	-				\$	-		\$	-
13 Cut & Cover Double Track Tunnel			Mile	\$	131,246,080		0	\$	-			0	\$	-	0.00	\$	-
14 Trench Long (2 tracks) (1000 ft+)			Mile	\$	57,524,224		0.00	\$	-			0.00	\$	-	0.00	\$	-
Trench Long (4 tracks) (1000 ft+)			Mile	\$	86,286,336		0.57	\$	49,026,327			0.00			0.00		
15 Trench Short (2 tracks) (<1000 ft)			Mile	\$	78,843,904			\$	-				\$	-		\$	-
Trench Short (4 tracks) (<1000 ft)			Mile	\$	118,265,856												
16 Mechanical & Electrical for Tunnels			Mile	\$	11,848,704		0.00	\$	-			0.57	\$	6,732,218	0.57	\$	6,732,218
17 Retaining Walls			Mile	\$	8,613,888		0.00	\$	-			0.00	\$	-	0.00	\$	-
18 Containment Walls			Mile	\$	5,907,456		0.00	\$	-				\$	-		\$	-
19 Single Track Cut and Cover Subway			Mile	\$	131,246,080			\$	-				\$	-		\$	-
Four Track Drill & Blast			Mile	\$	293,775,360			\$	-				\$	-		\$	-
Four Track Mined (Soft Soil)			Mile	\$	158,400,000			\$	-				\$	-	0.00	\$	-
Four Track TBM (<6 Miles)			Mile	\$	213,274,624									0.00	\$	-	
Four Track TBM w/3rd Tube (>6 Miles)			Mile	\$	353,441,792											\$	-
Four Track Cut & Cover Tunnel			Mile	\$	262,492,160		0.00	\$	-			0.57	\$	149,143,273	0.00	\$	-
Grade Separations																	
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)			ea	\$	13,284,352			\$	-				\$	-		\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)			ea	\$	19,926,528			\$	-				\$	-		\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)			ea	\$	2,759,680			\$	-				\$	-		\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)			ea	\$	2,029,568			\$	-				\$	-		\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)			ea	\$	3,563,520			\$	-				\$	-		\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)			ea	\$	3,593,216			\$	-				\$	-		\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)			ea	\$	2,850,816			\$	-				\$	-		\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)			ea	\$	3,171,328			\$	-				\$	-		\$	-

COST ELEMENTS			UNIT	UNIT PRICE	Open Trench (4 tracks)				Covered Trench				Tunnel (HST only)			
Subsection 6			Base: 2009 (3rd Quarter)		D				D				D			
					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles	
Subsection Details							Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 1940 + 00	End: 1970 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
7	Street Bridging HSR Trench	ea	\$	1,398,784				\$ -			2	\$ 2,797,568				\$ -
8	Minor Crossing Closures	ea	\$	87,040				\$ -				\$ -				\$ -
Building Items																
1	Intermediate Passenger Stations	Each	\$	-				\$ -				\$ -				\$ -
2	Terminal Passenger Stations	Each	\$	-				\$ -				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$ -				\$ -				\$ -
3	Maintenance Facility	Each	\$	123,921,884				\$ -				\$ -				\$ -
4	Parking - Structures	space	\$	-				\$ -				\$ -				\$ -
5	Parking - At Grade	space	\$	-				\$ -				\$ -				\$ -
Rail & Utility Relocation																
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$ -				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$ -				\$ -				\$ -
3	Single Track Removal	Mile	\$	130,048				\$ -				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$ -				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$ -				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$ -				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$ -				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$ -				\$ -				\$ -
ROW (Not Included)																
ROW required for each segment																
1	Dense Urban	Acre	\$	2,786,321				\$ -				\$ -				\$ -
2	Urban	Acre	\$	1,371,510				\$ -				\$ -				\$ -
3	Dense Suburban	Acre	\$	908,134				\$ -				\$ -				\$ -
4	Suburban	Acre	\$	208,418				\$ -				\$ -				\$ -
5	Undeveloped	Acre	\$	3,642				\$ -				\$ -				\$ -
ROW required for Temp. Construction Easement																
1	Dense Urban	Acre						\$ -				\$ -				\$ -
2	Urban	Acre						\$ -				\$ -				\$ -
3	Dense Suburban	Acre						\$ -				\$ -				\$ -
4	Suburban	Acre						\$ -				\$ -				\$ -
5	Undeveloped	Acre						\$ -				\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities																
6	Dense Urban	Acre	\$	2,786,321				\$ -				\$ -				\$ -
7	Urban	Acre	\$	1,371,510				\$ -				\$ -				\$ -
8	Dense Suburban	Acre	\$	908,134				\$ -				\$ -				\$ -
9	Suburban	Acre	\$	208,418				\$ -				\$ -				\$ -
10	Undeveloped	Acre	\$	3,642				\$ -				\$ -				\$ -
Environmental Mitigation = 3% Line Costs								\$ 1,950,792				\$ 5,182,244				\$ 2,120,685
System Elements																
1	Signaling (ATC)	Mile	\$	2,070,000			0.57	\$ 1,176,136			0.57	\$ 1,176,136			0.57	\$ 1,176,136
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.57	\$ 306,818			0.57	\$ 306,818			0.57	\$ 306,818
3	Wayside Protection System	Mile	\$	108,000			0.57	\$ 61,364			0.57	\$ 61,364			0.57	\$ 61,364
Electrification Items																
1	Traction Power supply	Mile	\$	1,170,000			0.57	\$ 664,773			0.57	\$ 664,773			0.57	\$ 664,773
2	Traction Power Distribution	Mile	\$	1,485,000			0.57	\$ 843,750			0.57	\$ 843,750			0.57	\$ 843,750
Subtotal								\$ 70,030,049				\$ 180,976,555				\$ 75,863,015
Program Implementation Costs (per screening)								\$ 17,857,662				\$ 46,149,021				\$ 19,345,069
Program Implementation Costs																
Contingencies (per screening) (25%)								\$ 17,507,512				\$ 45,244,139				\$ 18,965,754
Subtotal								\$ 105,395,224				\$ 272,369,715				\$ 114,173,838
Subtotal (Rounded)								\$ 105,000,000				\$ 272,000,000				\$ 114,000,000

Subsection 7	7A & 7B (2.9 miles)				7C & 7D (2.8 miles)			
	Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel	Aerial Viaduct	At Grade	Open Trench	Covered Trench/Tunnel
Capital Cost (\$2009 in Millions) does not include ROW	\$ <del>344</del> <u>424</u>	\$ <del>155</del> <u>154</u>	\$ <del>615</del> <u>583</u>	\$1,433	\$ <del>99</del> <u>219</u>	\$ <del>107</del> <u>128</u>	\$ <del>540</del> <u>510</u>	\$1,323
Acquisition Cost of Permanent ROW	Medium	Highest	Medium	Lowest	Medium	Highest	Medium	Lowest
Notes:	1. Caltrain San Antonio and Mountain View stations. 2. Potential HST Mountain View station (costs not included). 3. Convert Shoreline Blvd to an underpass.	1. Caltrain San Antonio and Mountain View stations. 2. Potential HST Mountain View station (costs not included). 3. Grade separation at Rengstorff Ave and Castro St.	1. Caltrain San Antonio and Mountain View stations. 2. Potential HST Mountain View station (costs not included).	1. Caltrain San Antonio and Mountain View stations. 2. Potential HST Mountain View station (costs not included).	1. Caltrain Sunnyvale station. 2. Aerial only in the vicinity of Mary Ave.	1. Caltrain Sunnyvale station. 2. Grade separations at Mary Ave and Sunnyvale Ave.	1. Caltrain Sunnyvale station.	1. Caltrain Sunnyvale station.

COST ELEMENTS		UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				At-Grade (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 7			Base: 2009 (3rd Quarter)	A				A				A				A			
				Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles	
Subsection Dedtails						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Section - Total		Mile	\$			0.00	\$	-		1.04	\$			0.00	\$			0	\$
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$	-		0.00	\$			0.00	\$			0	\$
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-		0.00	\$			0.00	\$			0	\$
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-		0.00	\$			0.00	\$			0	\$
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-		0.00	\$			0.00	\$			0	\$
Four Track Section - Total		Mile	\$			0.00	\$	-		0.00	\$			0.00	\$			0.00	\$
Four-track Section - At Grade	Mile	\$	4,200,448			1.04	\$	9,792,000		0	\$			0.00	\$			0.00	\$
Four-Track Section - On Structure	Mile	\$	9,400,320			0.00	\$	-		0	\$			0.00	\$			1.04	\$
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00	\$	-		0	\$			0.00	\$			0.00	\$
Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$	-		0	\$			1.04	\$	9,792,000		0.00	\$
Single Track - Total		Mile	\$			0	\$	-		0	\$			0	\$			0	\$
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-		0	\$			0	\$			0	\$
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-		0	\$			0	\$			0	\$
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-		0	\$			0	\$			0	\$
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-		0	\$			0	\$			0	\$
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-		0	\$			0	\$			0	\$
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-		0	\$			0	\$			0	\$
Earthwork Items																			
1 Site Preparation - Undeveloped	Acre	\$	9,216			13.89	\$	128,000		8.21	\$			13.89	\$	128,000		13.89	\$
2 Total Cut	CY	\$	6.45			0	\$	-		0.00	\$			448148.15	\$	2,891,093		1120370.37	\$
3 Total Fill	CY	\$	6.29			0	\$	-		0.00	\$			0.00	\$	-		672222.22	\$
4 Borrow	CY	\$	12.58			0.00	\$	-		0.00	\$			0.00	\$	-		0.00	\$
5 Spoil	CY	\$	12.58			0.00	\$	-		0.00	\$			448148.15	\$	5,637,632		448148.15	\$
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$	-		0.00	\$			13.89	\$	85,333		0.00	\$
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$	-		0.00	\$			1.04	\$	150,400		0.00	\$
8 Special Drainage Facilities	5% Earthwork					\$	6,400			\$	3,782			\$	444,623		\$	861,079	
Structures, Tunnels, Walls																			
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$	-		0.00 Miles	\$			0.00	\$	-		0.00	\$
Standard Structure (4 tracks)	Mile	\$	52,459,008			1.04	\$	54,644,800		0.00 Miles				0.00				0.00	
2 High Structure	Mile	\$	40,424,448				\$	-			\$				\$	-			\$
3 Long Span Structure	Mile	\$	61,919,232				\$	-			\$				\$	-			\$
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-			\$				\$	-			\$
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			0.02	\$	1,743,360		0.01	\$	871,680			\$	-			\$
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-			\$	-			\$	-			\$
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-			\$	-			\$	-			\$
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-			\$	-			\$	-			\$
9 Double Track Drill & Blast	Mile	\$	146,887,680			0.00	\$	-		0	\$	-		0.00	\$	-		0.00	\$
10 Double Track Mined (Soft Soil)	Mile	\$	792,000,000				\$	-			\$	-			\$	-			\$
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-			\$	-			\$	-			\$
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				\$	-			\$	-			\$	-			\$
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-			\$	-			\$	-			\$
12 Crossovers	ea	\$	442,368				\$	-			\$	-			\$	-			\$
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0.00	\$	-		0	\$	-		0.00	\$	-		0.00	\$
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00	\$	-		0.00 Miles	\$	-		0.00	\$	-		0.00	\$
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.00				0.00 Miles				1.04	\$	89,881,600		0.00	
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-			\$	-			\$	-			\$
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856																
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			0.00	\$	-		0	\$	-		0.00	\$	-		1.04	\$
17 Retaining Walls	Mile	\$	8,613,888			0.00	\$	-		0	\$	-		0.00	\$	-		0.00	\$
18 Containment Walls	Mile	\$	5,907,456				\$	-			\$	-		0.00	\$	-			\$
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-			\$	-			\$	-			\$
Four Track Drill & Blast	Mile	\$	293,775,360				\$	-			\$	-			\$	-			\$
Four Track Mined (Soft Soil)	Mile	\$	1,584,000,000				\$	-			\$	-			\$	-			\$
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$	-			\$	-			\$	-			\$
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$	-			\$	-			\$	-			\$
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-		0.00	\$	-		0.00	\$	-		1.04	\$
Grade Separations																			
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-			\$	-			\$	-			\$
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528			1	\$	19,926,528		0	\$	-			\$	-			\$
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$	-			\$	-			\$	-			\$
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-			\$	-			\$	-			\$
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$	-		0	\$	-			\$	-			\$
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-			\$	-			\$	-			\$
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-			\$	-			\$	-			\$
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-			\$	-			\$	-			\$
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-			\$	-			\$	-			\$



COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)			At-Grade (4 tracks)			Open Trench (4 tracks)			Covered Trench (4 tracks)							
Subsection 7				Base: 2009 (3rd Quarter)	A			A			A			A							
					Start: 1970 + 00	End: 2025 + 00	1.04 Miles	Start: 1970 + 00	End: 2025 + 00	1.04 Miles	Start: 1970 + 00	End: 2025 + 00	1.04 Miles	Start: 1970 + 00	End: 2025 + 00	1.04 Miles					
Subsection Dedtails							Quant.	Cost			Quant.	Cost			Quant.	Cost					
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles						
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles						
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles						
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Elevated (Mile)					Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 1970 + 00	End: 2025 + 00	1.04 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
8	Minor Crossing Closures	ea	\$	87,040				\$	-			\$	-			\$	-			\$	-
Building Items																					
1	Intermediate Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-			\$	-
2	Terminal Passenger Stations	Each	\$	-				\$	-			\$	-			\$	-			\$	-
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$	-		1	\$	15,000,000			\$	-			\$	-
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000			1	\$	15,000,000			\$	-			\$	-			\$	-
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$	-			\$	-			\$	-			\$	-
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$	-			\$	-		1	\$	15,000,000		1	\$	15,000,000
3	Maintenance Facility	Each	\$	-				\$	-			\$	-			\$	-			\$	-
4	Parking - Structures	space	\$	-				\$	-			\$	-			\$	-			\$	-
5	Parking - At Grade	space	\$	-				\$	-			\$	-			\$	-			\$	-
Rail & Utility Relocation																					
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$	-			\$	-			\$	-			\$	-
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$	-			\$	-			\$	-			\$	-
3	Single Track Removal	Mile	\$	130,048				\$	-			\$	-			\$	-			\$	-
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$	-			\$	-			\$	-			\$	-
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$	-			\$	-			\$	-			\$	-
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$	-			\$	-			\$	-			\$	-
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$	-			\$	-			\$	-			\$	-
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$	-			\$	-			\$	-			\$	-
ROW (Not Included)																					
ROW required for each segment																					
1	Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-			\$	-
2	Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-			\$	-
3	Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-			\$	-
4	Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-			\$	-
5	Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-			\$	-
ROW required for Temp. Construction Easement																					
1	Dense Urban	Acre						\$	-			\$	-			\$	-			\$	-
2	Urban	Acre						\$	-			\$	-			\$	-			\$	-
3	Dense Suburban	Acre						\$	-			\$	-			\$	-			\$	-
4	Suburban	Acre						\$	-			\$	-			\$	-			\$	-
5	Undeveloped	Acre						\$	-			\$	-			\$	-			\$	-
Right-of-Way Required for Stations, Maintenance & Parking Facilities																					
6	Dense Urban	Acre	\$	2,786,321				\$	-			\$	-			\$	-			\$	-
7	Urban	Acre	\$	1,371,510				\$	-			\$	-			\$	-			\$	-
8	Dense Suburban	Acre	\$	908,134				\$	-			\$	-			\$	-			\$	-
9	Suburban	Acre	\$	208,418				\$	-			\$	-			\$	-			\$	-
10	Undeveloped	Acre	\$	3,642				\$	-			\$	-			\$	-			\$	-
Environmental Mitigation = 3% Line Costs								\$	3,037,233			\$	544,165			\$	3,846,211			\$	9,859,392
System Elements																					
1	Signaling (ATC)	Mile	\$	2,070,000			1.04	\$	2,156,250			1.04	\$	2,156,250			1.04	\$	2,156,250		
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			1.04	\$	562,500			1.04	\$	562,500			1.04	\$	562,500		
3	Wayside Protection System	Mile	\$	108,000			1.04	\$	112,500			1.04	\$	112,500			1.04	\$	112,500		
Electrification Items																					
1	Traction Power supply	Mile	\$	1,170,000			1.04	\$	1,218,750			1.04	\$	1,218,750			1.04	\$	1,218,750		
2	Traction Power Distribution	Mile	\$	1,485,000			1.04	\$	1,546,875			1.04	\$	1,546,875			1.04	\$	1,546,875		
	Subtotal							\$	109,875,196				\$	24,279,871				\$	137,650,120		
	Program Implementation Costs							\$	28,018,175				\$	6,191,367				\$	35,100,781		
	Contingencies (per screening) (25%)							\$	27,468,799				\$	6,069,968				\$	34,412,530		
	Subtotal							\$	165,362,169				\$	36,541,207				\$	207,163,430		
	Subtotal (Rounded)							\$	165,000,000				\$	37,000,000				\$	207,000,000		

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)			At-Grade (4 tracks)			Open Trench (4 tracks)			Covered Trench (4 tracks)								
Subsection 7				Base: 2009 (3rd Quarter)	B			B			B			B								
					Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles			
Subsection Dedtails						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost			
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Elevated (Mile)					Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles			
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
1 Double Track Section - Total																						
1 Double Track Section - At Grade				Mile	\$	2,100,224		0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-
2 Double Track Section - On Structure				Mile	\$	4,700,160		0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-
3 Double Track Section - In Tunnel or Subway				Mile	\$	4,700,160		0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-
4 Double Track Section - In Trench				Mile	\$	4,700,160		0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-
Four Track Section - Total																						
Four-track Section - At Grade				Mile	\$	4,200,448		0.00	\$	-	1.89	\$	7,955,394		0.00	\$	-		0.00	\$	-	
Four-Track Section - On Structure				Mile	\$	9,400,320		1.89	\$	17,803,636		0	\$	-		0.00	\$	-		0.00	\$	-
Four-Track Section - In Tunnel or Subway				Mile	\$	9,400,320		0.00	\$	-		0	\$	-		0.00	\$	-		1.89	\$	17,803,636
Four-Track Section - In Trench				Mile	\$	9,400,320		0.00	\$	-		0	\$	-		1.89	\$	17,803,636		0.00	\$	-
Single Track - Total																						
5 Single Track Section - At Grade				Mile	\$	1,549,312		0	\$	-		0	\$	-		0	\$	-		0	\$	-
6 Single Track Section - On structure				Mile	\$	2,350,080		0	\$	-		0	\$	-		0	\$	-		0	\$	-
7 Single Track Section - In Tunnel or Subway				Mile	\$	2,350,080		0	\$	-		0	\$	-		0	\$	-		0	\$	-
8 Single Track Section - In Trench				Mile	\$	2,350,080		0	\$	-		0	\$	-		0	\$	-		0	\$	-
9 Freight Double Track - At Grade				Mile	\$	2,839,552		0	\$	-		0	\$	-		0	\$	-		0	\$	-
10 Freight Single Track - At Grade				Mile	\$	1,549,312		0	\$	-		0	\$	-		0	\$	-		0	\$	-
Earthwork Items																						
1 Site Preparation - Undeveloped				Acre	\$	9,216		25.25	\$	232,727		0.00	\$	-		25.25	\$	232,727		25.25	\$	232,727
2 Total Cut				CY	\$	6.45		0	\$	-		0	\$	-		1629629.63	\$	10,513,067		1629629.63	\$	10,513,067
3 Total Fill				CY	\$	6.29		0	\$	-		0	\$	-		0.00	\$	-		814814.81	\$	5,125,120
4 Borrow				CY	\$	12.58		0.00	\$	-		0.00	\$	-		0.00	\$	-		0.00	\$	-
5 Spoil				CY	\$	12.58		0.00	\$	-		0.00	\$	-		1629629.63	\$	20,500,480		814814.81	\$	10,250,240
6 Landscape erosion Control				Acre	\$	6,144		0.00	\$	-		0.00	\$	-		25.25	\$	155,152		0.00	\$	-
7 Security Fencing (Both sides of ROW)				Mile	\$	144,384		0.00	\$	-		1.89	\$	273,455		1.89	\$	273,455		0.00	\$	-
8 Special Drainage Facilities				5% Earthwork					\$	11,636			\$	13,673			\$	1,583,744			\$	1,306,058
Structures, Tunnels, Walls																						
1 Standard Structure (2 tracks)				Mile	\$	34,972,672		0.00	\$	-		0.00 Miles	\$	-		0.00	\$	-		0.00 Miles	\$	-
Standard Structure (4 tracks)				Mile	\$	52,459,008		1.89	\$	99,354,182		0.00 Miles				0.00				0.00 Miles		
2 High Structure				Mile	\$	40,424,448		0.00	\$	-			\$	-			\$	-			\$	-
3 Long Span Structure				Mile	\$	61,919,232			\$	-			\$	-			\$	-			\$	-
4 Waterway Crossing - Primary				Mile	\$	85,342,208			\$	-			\$	-			\$	-			\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)				Mile	\$	92,049,408		0.02	\$	1,743,360		0.03	\$	2,615,040			\$	-		0.01	\$	697,344
6 Twin Single Track Drill&Blast (<6 Miles)				Mile	\$	142,731,264			\$	-			\$	-			\$	-			\$	-
7 Twin Single Track TBM (<6 Miles)				Mile	\$	106,637,312			\$	-			\$	-			\$	-			\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)				Mile	\$	176,720,896			\$	-			\$	-			\$	-			\$	-
9 Double Track Drill & Blast				Mile	\$	146,887,680		0.00	\$	-		0	\$	-		0.00	\$	-		0	\$	-
10 Double Track Mined (Soft Soil)				Mile	\$	79,200,000			\$	-			\$	-			\$	-			\$	-
Double Track TBM (<6 Miles)				Mile	\$	106,637,312																
Double Track TBM w/3rd Tube (>6 Miles)				Mile	\$	176,720,896																
11 Seismic Chamber (Drill & Blast/Mined)				ea	\$	126,205,952			\$	-			\$	-			\$	-			\$	-
12 Crossovers				ea	\$	442,368			\$	-			\$	-			\$	-			\$	-
13 Cut & Cover Double Track Tunnel				Mile	\$	131,246,080		0.00	\$	-		0	\$	-		0.00	\$	-		0	\$	-
14 Trench Long (2 tracks) (1000 ft+)				Mile	\$	57,524,224		0.00	\$	-		0.00 Miles	\$	-		0.00	\$	-		0.00	\$	-
Trench Long (4 tracks) (1000 ft+)				Mile	\$	86,286,336		0.00				0.00 Miles				1.89	\$	163,421,091		0.00		
15 Trench Short (2 tracks) (<1000 ft)				Mile	\$	78,843,904			\$	-			\$	-			\$	-			\$	-
Trench Short (4 tracks) (<1000 ft)				Mile	\$	118,265,856																
16 Mechanical & Electrical for Tunnels				Mile	\$	11,848,704		0.00	\$	-		0	\$	-		0.00	\$	-		1.89	\$	22,440,727
17 Retaining Walls				Mile	\$	8,613,888		0.00	\$	-		0	\$	-		0.00	\$	-		0.00	\$	-
18 Containment Walls				Mile	\$	5,907,456			\$	-			\$	-		0.00	\$	-			\$	-
19 Single Track Cut and Cover Subway				Mile	\$	131,246,080			\$	-			\$	-			\$	-			\$	-
Four Track Drill & Blast				Mile	\$	293,775,360			\$	-			\$	-			\$	-			\$	-
Four Track Mined (Soft Soil)				Mile	\$	158,400,000			\$	-			\$	-			\$	-			\$	-
Four Track TBM (<6 Miles)				Mile	\$	213,274,624																
Four Track TBM w/3rd Tube (>6 Miles)				Mile	\$	353,441,792																
Four Track Cut & Cover Tunnel				Mile	\$	262,492,160		0.00	\$	-		0.00	\$	-		0.00	\$	-		1.89	\$	497,144,242
Grade Separations																						
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)				ea	\$	13,284,352			\$	-			\$	-			\$	-			\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)				ea	\$	19,926,528	1	\$	19,926,528		2	\$	39,853,056			\$	-				\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)				ea	\$	2,759,680	1	\$	2,759,680			\$	-			\$	-				\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)				ea	\$	2,029,568			\$	-			\$	-			\$	-			\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)				ea	\$	3,563,520	0	\$	-		0	\$	-			\$	-				\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)				ea	\$	3,593,216			\$	-			\$	-			\$	-			\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)				ea	\$	2,850,816			\$	-			\$	-			\$	-			\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)				ea	\$	3,171,328	0	\$	-		0	\$	-			\$	-				\$	-
7 Street Bridging HSR Trench				ea	\$	1,398,784			\$	-			\$	-		2	\$	2,797,568		0	\$	-

COST ELEMENTS		UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				At-Grade (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 7			Base: 2009 (3rd Quarter)	B				B				B				B			
				Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles	
Subsection Dedtails						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2025 + 00	End: 2125 + 00	1.89 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040			1	\$ 87,040			1	\$ 87,040			1	\$ 87,040			0	\$ -
	Building Items																		
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -			1	\$ -			1	\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000			1	\$ 15,000,000			1	\$ 15,000,000				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -			0	\$ -			1	\$ 15,000,000
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -			1	\$ 15,000,000			0	\$ -
3	Maintenance Facility	Each	\$ -				\$ -				\$ -				\$ -				\$ -
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -				\$ -
	Rail & Utility Relocation																		
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -				\$ -
	ROW (Not Included)																		
	ROW required for each segment																		
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -
	ROW required for Temp. Construction Easement	Acre																	
1	Dense Urban	Acre					\$ -				\$ -				\$ -				\$ -
2	Urban	Acre					\$ -				\$ -				\$ -				\$ -
3	Dense Suburban	Acre					\$ -				\$ -				\$ -				\$ -
4	Suburban	Acre					\$ -				\$ -				\$ -				\$ -
5	Undeveloped	Acre					\$ -				\$ -				\$ -				\$ -
	Right-of-Way Required for Stations, Maintenance & Parking Facilities																		
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -
	Environmental Mitigation = 3% Line Costs						\$ 4,707,564				\$ 1,973,930				\$ 6,971,039				\$ 17,415,395
	System Elements																		
1	Signaling (ATC)	Mile	\$ 2,070,000			1.89	\$ 3,920,455			1.89	\$ 3,920,455			1.89	\$ 3,920,455			1.89	\$ 3,920,455
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.89	\$ 1,022,727			1.89	\$ 1,022,727			1.89	\$ 1,022,727			1.89	\$ 1,022,727
3	Wayside Protection System	Mile	\$ 108,000			1.89	\$ 204,545			1.89	\$ 204,545			1.89	\$ 204,545			1.89	\$ 204,545
	Electrification Items																		
1	Traction Power supply	Mile	\$ 1,170,000			1.89	\$ 2,215,909			1.89	\$ 2,215,909			1.89	\$ 2,215,909			1.89	\$ 2,215,909
2	Traction Power Distribution	Mile	\$ 1,485,000			1.89	\$ 2,812,500			1.89	\$ 2,812,500			1.89	\$ 2,812,500			1.89	\$ 2,812,500
	Subtotal						\$ 171,802,490				\$ 77,947,723				\$ 249,515,134				\$ 608,104,693
	Program Implementation Costs						\$ 43,809,635				\$ 19,876,669				\$ 63,626,359				\$ 155,066,697
	Contingencies (per screening) (25%)						\$ 42,950,622				\$ 19,486,931				\$ 62,378,784				\$ 152,026,173
	Subtotal						\$ 258,562,747				\$ 117,311,324				\$ 375,520,277				\$ 915,197,563
	Subtotal (Rounded)						\$ 259,000,000				\$ 117,000,000				\$ 376,000,000				\$ 915,000,000

COST ELEMENTS				UNIT	UNIT PRICE	At-Grade (4 tracks)				Open Trench (4 tracks)				Covered Trench				
Subsection 7					Base: 2009 (3rd Quarter)	C				C				C				
						Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles		
Subsection Dedtails							Quant.	Cost			Quant.	Cost			Quant.	Cost		
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles			
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles			
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles			
Double Track Section - Total																		
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$	-			0.00	\$	-			0.00	\$	-
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-			0.00	\$	-
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-			0.00	\$	-
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$	-			0.00	\$	-			0.00	\$	-
Four Track Section - Total																		
Four-track Section - At Grade	Mile	\$	4,200,448			1.12	\$	4,693,682			0.00	\$	-			0.00	\$	-
Four-Track Section - On Structure	Mile	\$	9,400,320			0.00	\$	-			0.00	\$	-			0.00	\$	-
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0	\$	-			0.00	\$	-			1.12	\$	10,504,145
Four-Track Section - In Trench	Mile	\$	9,400,320			0	\$	-			1.12	\$	10,504,145			0.00	\$	-
Single Track - Total																		
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-			0	\$	-
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$	-			0	\$	-			0	\$	-
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$	-			0	\$	-			0	\$	-
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$	-			0	\$	-			0	\$	-
Freight Double Track - At Grade																		
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$	-			0	\$	-			0	\$	-
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$	-			0	\$	-			0	\$	-
Earthwork Items																		
1 Site Preparation - Undeveloped	Acre	\$	9,216			0.00	\$	-			14.90	\$	137,309			14.90	\$	137,309
2 Total Cut	CY	\$	6.45			0	\$	-			961481.48	\$	6,202,709			961481.48	\$	6,202,709
3 Total Fill	CY	\$	6.29			0	\$	-			0.00	\$	-			480740.74	\$	3,023,821
4 Borrow	CY	\$	12.58			0.00	\$	-			0.00	\$	-			0.00	\$	-
5 Spoil	CY	\$	12.58			0.00	\$	-			961481.48	\$	12,095,283			480740.74	\$	6,047,642
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$	-			14.90	\$	91,539			0.00	\$	-
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			1.12	\$	161,338			1.12	\$	161,338			0.00	\$	-
8 Special Drainage Facilities	5% Earthwork						\$	8,067				\$	934,409				\$	770,574
Structures, Tunnels, Walls																		
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$	-			0.00	\$	-			0.00 Miles	\$	-
Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00	\$	-			0.00	\$	-			0.00 Miles	\$	-
2 High Structure	Mile	\$	40,424,448				\$	-				\$	-				\$	-
3 Long Span Structure	Mile	\$	61,919,232				\$	-				\$	-				\$	-
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$	-				\$	-				\$	-
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$	-				\$	-			0.00	\$	-
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$	-				\$	-				\$	-
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-				\$	-
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$	-				\$	-				\$	-
9 Double Track Drill & Blast	Mile	\$	146,887,680			0	\$	-			0.00	\$	-			0	\$	-
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$	-				\$	-				\$	-
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				\$	-				\$	-				\$	-
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				\$	-				\$	-				\$	-
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$	-				\$	-				\$	-
12 Crossovers	ea	\$	442,368				\$	-				\$	-				\$	-
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0	\$	-			0.00	\$	-			0	\$	-
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00 Miles	\$	-			0.00	\$	-			0.00	\$	-
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.00 Miles					1.12	\$	96,418,444			0.00	\$	-
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$	-				\$	-				\$	-
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856															
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			0	\$	-			0.00	\$	-			1.12	\$	13,240,029
17 Retaining Walls	Mile	\$	8,613,888			0	\$	-			0.00	\$	-			0.00	\$	-
18 Containment Walls	Mile	\$	5,907,456				\$	-			0.00	\$	-			0.00	\$	-
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$	-				\$	-				\$	-
Four Track Drill & Blast	Mile	\$	293,775,360				\$	-				\$	-				\$	-
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$	-				\$	-				\$	-
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$	-				\$	-				\$	-
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$	-				\$	-				\$	-
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$	-			0.00	\$	-			1.12	\$	293,315,103
Grade Separations																		
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$	-				\$	-				\$	-
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$	-				\$	-				\$	-
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$	-				\$	-				\$	-
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$	-				\$	-				\$	-
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$	-				\$	-				\$	-
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$	-				\$	-				\$	-
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$	-				\$	-				\$	-
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$	-				\$	-				\$	-
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$	-			0	\$	-			0	\$	-

COST ELEMENTS		UNIT	UNIT PRICE	At-Grade (4 tracks)				Open Trench (4 tracks)				Covered Trench			
Subsection 7			Base: 2009 (3rd Quarter)	C				C				C			
				Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles	
Subsection Dedtails						Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 2125 + 00	End: 2184 + 00	1.12 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -			0	\$ -			0	\$ -
	Building Items														
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000			0	\$ -				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -			0	\$ -			0	\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -			0	\$ -				\$ -
3	Maintenance Facility	Each	\$ -				\$ -				\$ -				\$ -
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -
	Rail & Utility Relocation														
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -
	ROW (Not Included)														
	ROW required for each segment														
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -
	ROW required for Temp. Construction Easement	Acre													
1	Dense Urban	Acre					\$ -								
2	Urban	Acre					\$ -								
3	Dense Suburban	Acre					\$ -								
4	Suburban	Acre					\$ -								
5	Undeveloped	Acre					\$ -								
	Right-of-Way Required for Stations, Maintenance & Parking Facilities														
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -
	Environmental Mitigation = 3% Line Costs						\$ 145,893				\$ 3,796,355				\$ 9,997,240
	System Elements														
1	Signaling (ATC)	Mile	\$ 2,070,000			1.12	\$ 2,313,068			1.12	\$ 2,313,068			1.12	\$ 2,313,068
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.12	\$ 603,409			1.12	\$ 603,409			1.12	\$ 603,409
3	Wayside Protection System	Mile	\$ 108,000			1.12	\$ 120,682			1.12	\$ 120,682			1.12	\$ 120,682
	Electrification Items														
1	Traction Power supply	Mile	\$ 1,170,000			1.12	\$ 1,307,386			1.12	\$ 1,307,386			1.12	\$ 1,307,386
2	Traction Power Distribution	Mile	\$ 1,485,000			1.12	\$ 1,659,375			1.12	\$ 1,659,375			1.12	\$ 1,659,375
	Subtotal						\$ 11,012,901				\$ 136,345,453				\$ 349,242,493
	Program Implementation Costs (per screening)						\$ 2,808,290				\$ 34,768,091				\$ 89,056,836
	Program Implementation Costs														
	Contingencies (per screening) (25%)						\$ 2,753,225				\$ 34,086,363				\$ 87,310,623
	Subtotal						\$ 16,574,415				\$ 205,199,907				\$ 525,609,952
	Subtotal (Rounded)						\$ 17,000,000				\$ 205,000,000				\$ 526,000,000

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)				At-Grade (4 tracks)				Open Trench (4 tracks)				Covered Trench (4 tracks)			
Subsection 7			Base: 2009		D				D				D				D			
					Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles	
Subsection Dedtails							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 2245 + 00	End: 2270 + 00	0.47 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Elevated (Mile)					Start: 2184 + 00	End: 2245 + 00	1.16 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
1 Double Track Section - Total			Mile	\$ 2,100,224			0.00	\$ -			0.00	\$ -			0.00	\$ -			0	\$ -
2 Double Track Section - On Structure			Mile	\$ 4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -			0	\$ -
3 Double Track Section - In Tunnel or Subway			Mile	\$ 4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -			0	\$ -
4 Double Track Section - In Trench			Mile	\$ 4,700,160			0.00	\$ -			0.00	\$ -			0.00	\$ -			0	\$ -
Four Track Section - Total																				
Four-track Section - At Grade			Mile	\$ 4,200,448			0.47	\$ 1,988,848			1.63	\$ 6,841,639			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure			Mile	\$ 9,400,320			1.16	\$ 10,860,218			0	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway			Mile	\$ 9,400,320			0.00	\$ -			0	\$ -			0.00	\$ -			1.63	\$ 15,311,127
Four-Track Section - In Trench			Mile	\$ 9,400,320			0.00	\$ -			0	\$ -			1.63	\$ 15,311,127			0.00	\$ -
Single Track - Total																				
5 Single Track Section - At Grade			Mile	\$ 1,549,312			0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure			Mile	\$ 2,350,080			0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway			Mile	\$ 2,350,080			0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench			Mile	\$ 2,350,080			0	\$ -			0	\$ -			0	\$ -			0	\$ -
9 Freight Double Track - At Grade			Mile	\$ 2,839,552			0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade			Mile	\$ 1,549,312			0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped			Acre	\$ 9,216			15.40	\$ 141,964			0.00	\$ -			21.72	\$ 200,145			21.72	\$ 200,145
2 Total Cut			CY	\$ 6.45			0	\$ -			0.00	\$ -			700740.74	\$ 4,520,619			1751851.85	\$ 11,301,547
3 Total Fill			CY	\$ 6.29			0	\$ -			0.00	\$ -			0.00	\$ -			1051111.11	\$ 6,611,405
4 Borrow			CY	\$ 12.58			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil			CY	\$ 12.58			0.00	\$ -			0.00	\$ -			700740.74	\$ 8,815,206			700740.74	\$ 8,815,206
6 Landscape erosion Control			Acre	\$ 6,144			0.00	\$ -			0.00	\$ -			21.72	\$ 133,430			0.00	\$ -
7 Security Fencing (Both sides of ROW)			Mile	\$ 144,384			0.47	\$ 68,364			1.63	\$ 235,171			1.63	\$ 235,171			0.00	\$ -
8 Special Drainage Facilities			5% Earthwork					\$ 10,516				\$ 11,759				\$ 695,229				\$ 1,346,415
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)			Mile	\$ 34,972,672			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Standard Structure (4 tracks)			Mile	\$ 52,459,008			1.16	\$ 60,606,051			0.00	\$ -			0.00	\$ -			0.00	\$ -
2 High Structure			Mile	\$ 40,424,448				\$ -				\$ -				\$ -				\$ -
3 Long Span Structure			Mile	\$ 61,919,232				\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary			Mile	\$ 85,342,208				\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)			Mile	\$ 92,049,408			0.02	\$ 1,743,360			0.01	\$ 871,680				\$ -				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)			Mile	\$ 142,731,264				\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)			Mile	\$ 106,637,312				\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)			Mile	\$ 176,720,896				\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast			Mile	\$ 146,887,680			0.00	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
10 Double Track Mined (Soft Soil)			Mile	\$ 174,231,030				\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)			Mile	\$ 106,637,312				\$ -				\$ -				\$ -				\$ -
Double Track TBM w/3rd Tube (>6 Miles)			Mile	\$ 176,720,896				\$ -				\$ -				\$ -				\$ -
11 Seismic Chamber (Drill & Blast/Mined)			ea	\$ 126,205,952				\$ -				\$ -				\$ -				\$ -
12 Crossovers			ea	\$ 442,368				\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel			Mile	\$ 131,246,080			0.00	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
14 Trench Long (2 tracks) (1000 ft+)			Mile	\$ 57,524,224			0.00	\$ -			0.00 Miles	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)			Mile	\$ 86,286,336			0.00	\$ -			0.00 Miles	\$ -			1.63	\$ 140,542,138			0.00	\$ -
15 Trench Short (2 tracks) (<1000 ft)			Mile	\$ 78,843,904				\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)			Mile	\$ 118,265,856				\$ -				\$ -				\$ -				\$ -
16 Mechanical & Electrical for Tunnels			Mile	\$ 11,848,704			0.00	\$ -			0	\$ -			0.00	\$ -			1.63	\$ 19,299,025
17 Retaining Walls			Mile	\$ 8,613,888			0.00	\$ -			0	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls			Mile	\$ 5,907,456				\$ -				\$ -			0.00	\$ -				\$ -
19 Single Track Cut and Cover Subway			Mile	\$ 131,246,080				\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast			Mile	\$ 293,775,360				\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)			Mile	\$ 348,462,059				\$ -				\$ -				\$ -				\$ -
Four Track TBM (<6 Miles)			Mile	\$ 213,274,624				\$ -				\$ -				\$ -				\$ -
Four Track TBM w/3rd Tube (>6 Miles)			Mile	\$ 353,441,792				\$ -				\$ -				\$ -				\$ -
Four Track Cut & Cover Tunnel			Mile	\$ 262,492,160			0.00	\$ -			0.00	\$ -			0.00	\$ -			1.63	\$ 427,544,048
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)			ea	\$ 13,284,352				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)			ea	\$ 19,926,528			0	\$ -			2	\$ 39,853,056				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)			ea	\$ 2,759,680				\$ -				\$ -				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)			ea	\$ 2,029,568				\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)			ea	\$ 3,563,520			0	\$ -			0	\$ -				\$ -				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)			ea	\$ 3,593,216				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)			ea	\$ 3,563,520				\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)			ea	\$ 3,171,328				\$ -				\$ -				\$ -				\$ -
7 Street Bridging HSR Trench			ea	\$ 1,398,784				\$ -				\$ -			2	\$ 2,797,568				\$ -



COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (4 tracks)			At-Grade (4 tracks)			Open Trench (4 tracks)			Covered Trench (4 tracks)					
Subsection 7			Base: 2009	D			D			D			D						
				Start: 2184 + 00	End: 2270 + 00	1.63 Miles	Start: 2184 + 00	End: 2270 + 00	1.63 Miles	Start: 2184 + 00	End: 2270 + 00	1.63 Miles	Start: 2184 + 00	End: 2270 + 00	1.63 Miles				
Subsection Dedtails						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles					
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 2245 + 00	End: 2270 + 00	0.47 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 2184 + 00	End: 2245 + 00	1.16 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles					
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles					
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles					
				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2184 + 00	End: 2270 + 00	1.63 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -				\$ -
Building Items																			
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -			1	15,000,000				\$ -				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000			0	\$ -				\$ -				\$ -				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -				\$ -			1	15,000,000
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -			1	15,000,000				\$ -
3	Maintenance Facility	Each	\$ -				\$ -				\$ -				\$ -				\$ -
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -				\$ -
Rail & Utility Relocation																			
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -				\$ -
ROW (Not Included)																			
ROW required for each segment																			
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -
ROW required for Temp. Construction Easement							\$ -				\$ -				\$ -				\$ -
1	Dense Urban	Acre					\$ -				\$ -				\$ -				\$ -
2	Urban	Acre					\$ -				\$ -				\$ -				\$ -
3	Dense Suburban	Acre					\$ -				\$ -				\$ -				\$ -
4	Suburban	Acre					\$ -				\$ -				\$ -				\$ -
5	Undeveloped	Acre					\$ -				\$ -				\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							\$ -				\$ -				\$ -				\$ -
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -
Environmental Mitigation = 3% Line Costs							\$ 2,262,580				\$ 1,884,399				\$ 5,647,519				\$ 15,162,868
System Elements																			
1	Signaling (ATC)	Mile	\$ 2,070,000			1.63	\$ 3,371,591			1.63	\$ 3,371,591			1.63	\$ 3,371,591			1.63	\$ 3,371,591
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			1.63	\$ 879,545			1.63	\$ 879,545			1.63	\$ 879,545			1.63	\$ 879,545
3	Wayside Protection System	Mile	\$ 108,000			1.63	\$ 175,909			1.63	\$ 175,909			1.63	\$ 175,909			1.63	\$ 175,909
Electrification Items																			
1	Traction Power supply	Mile	\$ 1,170,000			1.63	\$ 1,905,682			1.63	\$ 1,905,682			1.63	\$ 1,905,682			1.63	\$ 1,905,682
2	Traction Power Distribution	Mile	\$ 1,485,000			1.63	\$ 2,418,750			1.63	\$ 2,418,750			1.63	\$ 2,418,750			1.63	\$ 2,418,750
Subtotal						\$ 86,433,378				\$ 73,449,181				\$ 202,649,630				\$ 529,343,265	
Program Implementation Costs (per screening)						\$ 22,040,511				\$ 18,729,541				\$ 51,675,656				\$ 134,982,532	
Program Implementation Costs																			
Contingencies (per screening) (25%)						\$ 21,608,345				\$ 18,362,295				\$ 50,662,408				\$ 132,335,816	
Subtotal						\$ 130,082,234				\$ 110,541,017				\$ 304,987,693				\$ 796,661,613	
Subtotal (Rounded)						\$ 130,000,000				\$ 111,000,000				\$ 305,000,000				\$ 797,000,000	

Subsection 8	8A (6.4 miles)	8B (0.6 miles)			
	At Grade	Aerial Viaduct (HST Only)	At Grade (HST Only)	Covered Trench/Tunnel (HST Only)	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$125	\$40 (2 tracks)	\$7 (2 tracks)	\$150 (2 tracks)	\$113 (2 tracks)
Acquisition Cost of Permanent ROW	Highest	Medium	Highest	Lowest	Lowest
Notes:	1. Portions of existing alignment are 4-track. 2. Caltrain Lawrence station.				

COST ELEMENTS			UNIT	UNIT PRICE	At-Grade (4 tracks)			
Subsection 8			Base: 2009 (3rd Quarter)		A			
					Start: 2270 + 00	End: 2610 + 00	6.44 Miles	
Subsection Dedtails							Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 2270 + 00	End: 2610 + 00	6.44 Miles	
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Section - Total							0.00	\$ -
1	Double Track Section - At Grade	Mile	\$	2,100,224				\$ -
2	Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -
3	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -
4	Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -
Four Track Section - Total							6.44	\$ 27,048,339
Four-track Section - At Grade			Mile	\$ 4,200,448				\$ -
Four-Track Section - On Structure			Mile	\$ 9,400,320			0.00	\$ -
Four-Track Section - In Tunnel or Subway			Mile	\$ 9,400,320			0.00	\$ -
Four-Track Section - In Trench			Mile	\$ 9,400,320			0.00	\$ -
Single Track - Total							0	\$ -
5	Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -
6	Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -
8	Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -
9	Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$ -
10	Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -
Earthwork Items							85.86	\$ 791,273
1	Site Preparation - Undeveloped	Acre	\$	9,216				\$ -
2	Total Cut	CY	\$	6.45			0	\$ -
3	Total Fill	CY	\$	6.29			0	\$ -
4	Borrow	CY	\$	12.58			0	\$ -
5	Spoil	CY	\$	12.58			0	\$ -
6	Landscape erosion Control	Acre	\$	6,144			85.86	\$ 527,515
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -
8	Special Drainage Facilities	5% Earthwork						\$ 65,939
Structures, Tunnels, Walls							0.00 Miles	\$ -
1	Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00 Miles	\$ -
	Standard Structure (4 tracks)	Mile	\$	52,459,008				\$ -
2	High Structure	Mile	\$	40,424,448				\$ -
3	Long Span Structure	Mile	\$	61,919,232				\$ -
4	Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			0.04	\$ 3,486,720
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -
9	Double Track Drill & Blast	Mile	\$	146,887,680			0	\$ -
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312				
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -
12	Crossovers	ea	\$	442,368				\$ -
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0	\$ -
14	Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00 Miles	\$ -
	Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.00 Miles	\$ -
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856				\$ -
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				\$ -
17	Retaining Walls	Mile	\$	8,613,888			0	\$ -
18	Containment Walls	Mile	\$	5,907,456				\$ -
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -
	Four Track Drill & Blast	Mile	\$	293,775,360				\$ -
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$ -
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$ -
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				\$ -
Grade Separations								
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$ -
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680			0	\$ -
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$ -
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816			0	\$ -
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -
7	Street Bridging HSR Trench	ea	\$	1,398,784				\$ -

COST ELEMENTS		UNIT	UNIT PRICE	At-Grade (4 tracks)			
Subsection 8			Base: 2009 (3rd Quarter)	A			
				Start: 2270 + 00	End: 2610 + 00	6.44 Miles	
Subsection Dedtails						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 2270 + 00	End: 2610 + 00	6.44 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -
Building Items							
1	Intermediate Passenger Stations	Each	\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000			1	\$ 15,000,000
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -
3	Maintenance Facility	Each	\$ 123,924,884				\$ -
4	Parking - Structures	space	\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -
Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -
ROW (Not Included)							
ROW required for each segment							
1	Dense Urban	Acre	\$ 2,786,321				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -
4	Suburban	Acre	\$ 208,418				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -
ROW required for Temp. Construction Easement							
1	Dense Urban	Acre					\$ -
2	Urban	Acre					\$ -
3	Dense Suburban	Acre					\$ -
4	Suburban	Acre					\$ -
5	Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$ 2,786,321				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -
9	Suburban	Acre	\$ 208,418				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -
Environmental Mitigation = 3% Line Costs							\$ 1,407,594
System Elements							
1	Signaling (ATC)	Mile	\$ 2,070,000			6.44	\$ 13,329,545
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			6.44	\$ 3,477,273
3	Wayside Protection System	Mile	\$ 108,000			6.44	\$ 695,455
Electrification Items							
1	Traction Power supply	Mile	\$ 1,170,000			6.44	\$ 7,534,091
2	Traction Power Distribution	Mile	\$ 1,485,000			6.44	\$ 9,562,500
Subtotal							\$ 82,926,244
Program Implementation Costs (per screening)							\$ 21,146,192
Program Implementation Costs							
Contingencies (per screening) (25%)							\$ 20,731,561
Subtotal							\$ 124,803,997
Subtotal (Rounded)							\$ 125,000,000

COST ELEMENTS		UNIT	UNIT PRICE	Elevated Viaduct (2 tracks) (HST only)				At-Grade (2 tracks) (HST only)				Covered Trench (2 tracks) (HST only)				Tunnel (2 tracks) (HST only)			
Subsection 8			Base: 2009 (3rd Quarter)	B				B				B				B			
				Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles	
Subsection Dedtails				Start: 0 + 00	End: 0 + 00	Quant.	Cost	Start: 2610 + 00	End: 2640 + 00	Quant.	Cost	Start: 0 + 00	End: 0 + 00	Quant.	Cost	Start: 0 + 00	End: 0 + 00	Quant.	Cost
Double Track At-Grade (Mile)				Start: 2610 + 00	End: 2640 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
1 Double Track Section - Total		Mile	\$			0.00	\$			0.57	\$			0	\$			0.00	\$
2 Double Track Section - At Grade		Mile	\$			0.57	\$			0.00	\$			0	\$			0.00	\$
3 Double Track Section - On Structure		Mile	\$																
4 Double Track Section - In Tunnel or Subway		Mile	\$			0.00	\$			0.00	\$			0.57 Miles	\$			0.57	\$
4 Double Track Section - In Trench		Mile	\$			0.00	\$				\$			0	\$			0.00	\$
Four Track Section - Total																			
Four-track Section - At Grade		Mile	\$			0.00	\$			0	\$			0.00	\$			0.00	\$
Four-Track Section - On Structure		Mile	\$			0.00	\$			0	\$			0.00	\$			0.00	\$
Four-Track Section - In Tunnel or Subway		Mile	\$			0.00	\$			0.00	\$			0.00	\$			0.00	\$
Four-Track Section - In Trench		Mile	\$			0.00	\$				\$			0.00	\$			0.00	\$
Single Track - Total										0									
5 Single Track Section - At Grade		Mile	\$			0	\$			0	\$			0	\$			0	\$
6 Single Track Section - On structure		Mile	\$			0	\$			0	\$			0	\$			0	\$
7 Single Track Section - In Tunnel or Subway		Mile	\$			0	\$			0	\$			0	\$			0	\$
8 Single Track Section - In Trench		Mile	\$			0	\$				\$			0	\$			0	\$
9 Freight Double Track - At Grade		Mile	\$			0	\$			0	\$			0	\$			0	\$
10 Freight Single Track - At Grade		Mile	\$			0	\$			0	\$			0	\$			0	\$
Earthwork Items																			
1 Site Preparation - Undeveloped		Acre	\$			7.58	\$			7.58	\$			0.00	\$			0.00	\$
2 Total Cut		CY	\$			0.00	\$			0.00	\$			611111.11	\$			0.00	\$
3 Total Fill		CY	\$				\$				\$			366666.67	\$			0.00	\$
4 Borrow		CY	\$				\$				\$			0.00	\$			0.00	\$
5 Spoil		CY	\$				\$				\$			244444.44	\$			0.00	\$
6 Landscape erosion Control		Acre	\$			7.58	\$			7.58	\$			0.00	\$			0.00	\$
7 Security Fencing (Both sides of ROW)		Mile	\$			0.00	\$			0.00	\$			0.00	\$			0.00	\$
8 Special Drainage Facilities		5% Earthwork					\$				\$				\$				\$
Structures, Tunnels, Walls																			
1 Standard Structure (2 tracks)		Mile	\$			0.57	\$			0.00 Miles	\$			0.00	\$			0.00 Miles	\$
Standard Structure (4 tracks)		Mile	\$			0.00				0.00 Miles				0.00				0.00 Miles	
2 High Structure		Mile	\$				\$				\$				\$				\$
3 Long Span Structure		Mile	\$				\$				\$				\$				\$
4 Waterway Crossing - Primary		Mile	\$				\$				\$				\$				\$
5 Waterway Crossing - Secondary (Irrigation Canal)		Mile	\$				\$				\$				\$				\$
6 Twin Single Track Drill&Blast (<6 Miles)		Mile	\$				\$				\$				\$				\$
7 Twin Single Track TBM (<6 Miles)		Mile	\$				\$				\$				\$				\$
8 Twin Single Track TBM w/3rd Tube (<6 Miles)		Mile	\$				\$				\$				\$				\$
9 Double Track Drill & Blast		Mile	\$			0.00	\$			0.00	\$			0.00	\$			0.00	\$
10 Double Track Mined (Soft Soil)		Mile	\$				\$				\$				\$				\$
Double Track TBM (<6 Miles)		Mile	\$															0.57 Miles	
Double Track TBM w/3rd Tube (>6 Miles)		Mile	\$																
11 Seismic Chamber (Drill & Blast/Mined)		ea	\$				\$				\$				\$				\$
12 Crossovers		ea	\$				\$				\$				\$				\$
13 Cut & Cover Double Track Tunnel		Mile	\$				\$				\$			0.57	\$				\$
14 Trench Long (2 tracks) (1000 ft+)		Mile	\$			0.00	\$			0.00	\$			0.00	\$			0.00	\$
Trench Long (4 tracks) (1000 ft+)		Mile	\$			0.00				0.00				0.00				0.00	
15 Trench Short (2 tracks) (<1000 ft)		Mile	\$				\$				\$				\$				\$
Trench Short (4 tracks) (<1000 ft)		Mile	\$																
16 Mechanical & Electrical for Tunnels		Mile	\$			0.00	\$				\$			0.57	\$			0.57	\$
17 Retaining Walls		Mile	\$			0.00	\$			0.00	\$			0.00	\$			0.00	\$
18 Containment Walls		Mile	\$				\$				\$				\$				\$
19 Single Track Cut and Cover Subway		Mile	\$				\$				\$				\$				\$
Four Track Drill & Blast		Mile	\$				\$				\$				\$				\$
Four Track Mined (Soft Soil)		Mile	\$				\$				\$				\$			0.00 Miles	\$
Four Track TBM (<6 Miles)		Mile	\$				\$				\$				\$			0	\$
Four Track TBM w/3rd Tube (>6 Miles)		Mile	\$				\$				\$				\$				\$
Four Track Cut & Cover Tunnel		Mile	\$			0.00	\$				\$			0.00	\$			0.00	\$
Grade Separations																			
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)		ea	\$				\$				\$				\$				\$
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)		ea	\$				\$				\$				\$				\$
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)		ea	\$				\$			0	\$				\$				\$
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)		ea	\$				\$				\$				\$				\$
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)		ea	\$				\$				\$				\$				\$
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)		ea	\$				\$				\$				\$				\$
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)		ea	\$				\$			0	\$				\$				\$
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)		ea	\$				\$				\$				\$				\$
7 Street Bridging HSR Trench		ea	\$				\$				\$				\$				\$

COST ELEMENTS		UNIT	UNIT PRICE	Elevated Viaduct (2 tracks) (HST only)				At-Grade (2 tracks) (HST only)				Covered Trench (2 tracks) (HST only)				Tunnel (2 tracks) (HST only)			
Subsection 8			Base: 2009 (3rd Quarter)	B				B				B				B			
				Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles	
Subsection Details						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles		Start: 2610 + 00	End: 2640 + 00	0.57 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
8 Minor Crossing Closures			ea				\$ -				\$ -				\$ -				\$ -
Building Items																			
1 Intermediate Passenger Stations			Each				\$ -				\$ -				\$ -				\$ -
2 Terminal Passenger Stations			Each				\$ -				\$ -				\$ -				\$ -
Caltrain Passenger Station - At-Grade			Each				\$15,000,000				\$ -				\$ -				\$ -
Caltrain Passenger Station - On Structure			Each				\$15,000,000				\$ -				\$ -				\$ -
Caltrain Passenger Station - In Tunnel or Subway			Each				\$15,000,000				\$ -				\$ -				\$ -
Caltrain Passenger Station - In Trench			Each				\$15,000,000				\$ -				\$ -				\$ -
3 Maintenance Facility			Each				\$ 123,924,884				\$ -				\$ -				\$ -
4 Parking - Structures			space				\$ -				\$ -				\$ -				\$ -
5 Parking - At Grade			space				\$ -				\$ -				\$ -				\$ -
Rail & Utility Relocation																			
1 Single Track Relocation (Temporary)			Mile				\$ -				\$ -				\$ -				\$ -
2 Single Track Relocation (Permanent)			Mile				\$ -				\$ -				\$ -				\$ -
3 Single Track Removal			Mile				\$ 130,048				\$ -				\$ -				\$ -
4 Major Utility Relocations - Dense Urban			Mile				\$ 1,548,288				\$ -				\$ -				\$ -
5 Major Utility Relocations - Urban			Mile				\$ 1,084,416				\$ -				\$ -				\$ -
6 Major Utility Relocations - Dense Suburban			Mile				\$ 775,168				\$ -				\$ -				\$ -
7 Major Utility Relocations - Suburban			Mile				\$ 464,896				\$ -				\$ -				\$ -
8 Major Utility Relocations - Undeveloped			Mile				\$ 30,720				\$ -				\$ -				\$ -
ROW (Not Included)																			
ROW required for each segment																			
1 Dense Urban			Acre				\$ -				\$ -				\$ -				\$ -
2 Urban			Acre				\$ -				\$ -				\$ -				\$ -
3 Dense Suburban			Acre				\$ -				\$ -				\$ -				\$ -
4 Suburban			Acre				\$ -				\$ -				\$ -				\$ -
5 Undeveloped			Acre				\$ -				\$ -				\$ -				\$ -
ROW required for Temp. Construction Easement																			
1 Dense Urban			Acre				\$ -				\$ -				\$ -				\$ -
2 Urban			Acre				\$ -				\$ -				\$ -				\$ -
3 Dense Suburban			Acre				\$ -				\$ -				\$ -				\$ -
4 Suburban			Acre				\$ -				\$ -				\$ -				\$ -
5 Undeveloped			Acre				\$ -				\$ -				\$ -				\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities																			
6 Dense Urban			Acre				\$ -				\$ -				\$ -				\$ -
7 Urban			Acre				\$ -				\$ -				\$ -				\$ -
8 Dense Suburban			Acre				\$ -				\$ -				\$ -				\$ -
9 Suburban			Acre				\$ -				\$ -				\$ -				\$ -
10 Undeveloped			Acre				\$ -				\$ -				\$ -				\$ -
Environmental Mitigation = 3% Line Costs							\$ 679,907				\$ 39,465				\$ 2,812,931				\$ 2,099,764
System Elements																			
1 Signaling (ATC)			Mile			0.57	\$ 1,176,136			0.57	\$ 1,176,136			0.57	\$ 1,176,136			0.57	\$ 1,176,136
2 Communications (w/ Fiber Optic Backbone)			Mile			0.57	\$ 306,818			0.57	\$ 306,818			0.57	\$ 306,818			0.57	\$ 306,818
3 Wayside Protection System			Mile			0.57	\$ 61,364			0.57	\$ 61,364			0.57	\$ 61,364			0.57	\$ 61,364
Electrification Items																			
1 Traction Power supply			Mile			0.57	\$ 664,773			0.57	\$ 664,773			0.57	\$ 664,773			0.57	\$ 664,773
2 Traction Power Distribution			Mile			0.57	\$ 843,750			0.57	\$ 843,750			0.57	\$ 843,750			0.57	\$ 843,750
Subtotal							\$ 26,396,311				\$ 4,407,797				\$ 99,630,137				\$ 75,144,751
Program Implementation Costs							\$ 6,731,059				\$ 1,123,988				\$ 25,405,685				\$ 19,161,911
Contingencies (per screening) (25%)							\$ 6,599,078				\$ 1,101,949				\$ 24,907,534				\$ 18,786,188
Subtotal							\$ 39,726,449				\$ 6,633,734				\$ 149,943,356				\$ 113,092,850
Subtotal (Rounded)							\$ 40,000,000				\$ 7,000,000				\$ 150,000,000				\$ 113,000,000



Subsection 9(a)	9(a)A (2.3 miles)				9(a)B (0.9 miles)
	Aerial Viaduct (HST Only)	At Grade (HST Only)	Covered Trench/Tunnel (HST Only)	Deep Tunnel (HST Only)	Aerial Viaduct (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$160 (2 tracks)	\$54 (2 tracks)	\$594 (2 tracks)	\$484 (2 tracks)	\$248 (2 tracks)
Acquisition Cost of Permanent ROW	Medium	Highest	Lowest	Lowest	Medium
Notes:		1. Caltrain Santa Clara station reconstructed to allow for 2 HST tracks. 2. Convert Hedding St to an underpass.	1. Caltrain Santa Clara station reconstructed to allow for 2 HST tracks.		1. HST San Jose station.

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (2 tracks) (HST only)				At-Grade (2 tracks) (HST only)				Covered Trench (2 tracks) (HST only)				Tunnel (2 tracks) (HST only)			
Subsection 9 (a)				Base: 2009 (3rd Quarter)	A				A				A				A			
					Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles	
Subsection Dedtails							Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles	
1 Double Track Section - Total				Mile			0	\$ -			2.27	\$ 4,773,236			0.00	\$ -			0.00	\$ -
2 Double Track Section - On Structure				Mile			2.27	\$ 10,682,182			0.00	\$ -			0.00	\$ -			0.00	\$ -
3 Double Track Section - In Tunnel or Subway				Mile			0	\$ -			0.00	\$ -			2.27	\$ 10,682,182			2.27	\$ 10,682,182
4 Double Track Section - In Trench				Mile			0	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four Track Section - Total																				
Four-track Section - At Grade				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - On Structure				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Tunnel or Subway				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Four-Track Section - In Trench				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Single Track - Total																				
5 Single Track Section - At Grade				Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
6 Single Track Section - On structure				Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
7 Single Track Section - In Tunnel or Subway				Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
8 Single Track Section - In Trench				Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
9 Freight Double Track - At Grade				Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
10 Freight Single Track - At Grade				Mile			0	\$ -			0	\$ -			0	\$ -			0	\$ -
Earthwork Items																				
1 Site Preparation - Undeveloped				Acre			17.91	\$ 165,025			17.91	\$ 165,025			17.91	\$ 165,025			0.00	\$ -
2 Total Cut				CY			0.00	\$ -			0.00	\$ -			1155555.56	\$ 7,454,720			977777.78	\$ 6,307,840
3 Total Fill				CY			0.00	\$ -			0.00	\$ -			577777.78	\$ 3,634,176			0.00	\$ -
4 Borrow				CY			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
5 Spoil				CY			0.00	\$ -			0.00	\$ -			577777.78	\$ 7,268,352			977777.78	\$ 12,300,288
6 Landscape erosion Control				Acre			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
7 Security Fencing (Both sides of ROW)				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
8 Special Drainage Facilities				5% Earthwork				\$ 8,251				\$ 8,251				\$ 926,114				\$ 930,406
Structures, Tunnels, Walls																				
1 Standard Structure (2 tracks)				Mile			2.27	\$ 79,483,345			0.00	\$ -			0.00 Miles	\$ -			0.00 Miles	\$ -
Standard Structure (4 tracks)				Mile			0.00				0.00				0.00 Miles				0.00 Miles	
2 High Structure				Mile				\$ -				\$ -				\$ -				\$ -
3 Long Span Structure				Mile				\$ -				\$ -				\$ -				\$ -
4 Waterway Crossing - Primary				Mile				\$ -				\$ -				\$ -				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)				Mile			0.01	\$ 871,680				\$ -			0.01	\$ 697,344			0.01	\$ 697,344
6 Twin Single Track Drill&Blast (<6 Miles)				Mile				\$ -				\$ -				\$ -				\$ -
7 Twin Single Track TBM (<6 Miles)				Mile				\$ -				\$ -				\$ -				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)				Mile				\$ -				\$ -				\$ -				\$ -
9 Double Track Drill & Blast				Mile			0.00	\$ -			0.00	\$ -				\$ -				\$ -
10 Double Track Mined (Soft Soil)				Mile				\$ -				\$ -				\$ -				\$ -
Double Track TBM (<6 Miles)				Mile															0.00	\$ -
Double Track TBM w/3rd Tube (>6 Miles)				Mile															2.27	\$ 242,357,527
11 Seismic Chamber (Drill & Blast/Mined)				ea				\$ -				\$ -				\$ -				\$ -
12 Crossovers				ea				\$ -				\$ -				\$ -				\$ -
13 Cut & Cover Double Track Tunnel				Mile			0.00	\$ -			0.00	\$ -			2.27	\$ 298,286,545				\$ -
14 Trench Long (2 tracks) (1000 ft+)				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Trench Long (4 tracks) (1000 ft+)				Mile			0.00				0.00				0.00				0.00	
15 Trench Short (2 tracks) (<1000 ft)				Mile				\$ -				\$ -				\$ -				\$ -
Trench Short (4 tracks) (<1000 ft)				Mile				\$ 118,265,856												
16 Mechanical & Electrical for Tunnels				Mile			0.00	\$ -			0.00	\$ -			2.27	\$ 26,928,873			2.27	\$ 26,928,873
17 Retaining Walls				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
18 Containment Walls				Mile				\$ -				\$ -				\$ -				\$ -
19 Single Track Cut and Cover Subway				Mile				\$ -				\$ -				\$ -				\$ -
Four Track Drill & Blast				Mile				\$ -				\$ -				\$ -				\$ -
Four Track Mined (Soft Soil)				Mile				\$ -				\$ -				\$ -			0.00	\$ -
Four Track TBM (<6 Miles)				Mile				\$ 213,274,624											0.00	\$ -
Four Track TBM w/3rd Tube (>6 Miles)				Mile				\$ 353,441,792												\$ -
Four Track Cut & Cover Tunnel				Mile			0.00	\$ -			0.00	\$ -			0.00	\$ -			0.00	\$ -
Grade Separations																				
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)				ea				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)				ea				\$ -				\$ -				\$ -				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)				ea				\$ -			1	\$ 2,759,680				\$ -				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)				ea				\$ -				\$ -				\$ -				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)				ea				\$ -			0	\$ -			0	\$ -			0	\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)				ea				\$ -				\$ -				\$ -				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)				ea				\$ -				\$ -				\$ -				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)				ea				\$ -				\$ -				\$ -				\$ -
7 Street Bridging HSR Trench				ea				\$ -				\$ -				\$ -				\$ -

COST ELEMENTS			UNIT	UNIT PRICE	Elevated Viaduct (2 tracks) (HST only)				At-Grade (2 tracks) (HST only)				Covered Trench (2 tracks) (HST only)				Tunnel (2 tracks) (HST only)			
Subsection 9 (a)			Base: 2009 (3rd Quarter)	A				A				A				A				
				Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		
Subsection Dedtails						Quant.	Cost			Quant.	Cost			Quant.	Cost			Quant.	Cost	
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		Start: 2640 + 00	End: 2760 + 00	2.27 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles		Start: 0 + 00		0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		Start: 0 + 00	End: 0 + 00	0.00 Miles		
8	Minor Crossing Closures	ea	\$ 87,040				\$ -				\$ -				\$ -				\$ -	
Building Items																				
1	Intermediate Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -	
2	Terminal Passenger Stations	Each	\$ -				\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -			1	15,000,000				\$ -				\$ -	
	Caltrain Passenger Station - On Structure	Each	\$15,000,000			0	\$ -				\$ -				\$ -				\$ -	
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -				\$ -			1	15,000,000				\$ -	
	Caltrain Passenger Station - In Trench	Each	\$15,000,000				\$ -				\$ -				\$ -			0	\$ -	
3	Maintenance Facility	Each	\$ 123,921,884				\$ -				\$ -				\$ -				\$ -	
4	Parking - Structures	space	\$ -				\$ -				\$ -				\$ -				\$ -	
5	Parking - At Grade	space	\$ -				\$ -				\$ -				\$ -				\$ -	
Rail & Utility Relocation																				
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -	
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -				\$ -				\$ -				\$ -	
3	Single Track Removal	Mile	\$ 130,048				\$ -				\$ -				\$ -				\$ -	
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -				\$ -				\$ -				\$ -	
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -				\$ -				\$ -				\$ -	
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -				\$ -				\$ -				\$ -	
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -				\$ -				\$ -				\$ -	
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -				\$ -				\$ -				\$ -	
ROW (Not Included)																				
ROW required for each segment																				
1	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -	
2	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -	
3	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -	
4	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -	
5	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -	
ROW required for Temp. Construction Easement																				
1	Dense Urban	Acre					\$ -				\$ -				\$ -				\$ -	
2	Urban	Acre					\$ -				\$ -				\$ -				\$ -	
3	Dense Suburban	Acre					\$ -				\$ -				\$ -				\$ -	
4	Suburban	Acre					\$ -				\$ -				\$ -				\$ -	
5	Undeveloped	Acre					\$ -				\$ -				\$ -				\$ -	
Right-of-Way Required for Stations, Maintenance & Parking Facilities																				
6	Dense Urban	Acre	\$ 2,786,321				\$ -				\$ -				\$ -				\$ -	
7	Urban	Acre	\$ 1,371,510				\$ -				\$ -				\$ -				\$ -	
8	Dense Suburban	Acre	\$ 908,134				\$ -				\$ -				\$ -				\$ -	
9	Suburban	Acre	\$ 208,418				\$ -				\$ -				\$ -				\$ -	
10	Undeveloped	Acre	\$ 3,642				\$ -				\$ -				\$ -				\$ -	
	Environmental Mitigation = 3% Line Costs						\$ 2,736,314				\$ 681,186				\$ 11,131,300				\$ 9,006,134	
System Elements																				
1	Signaling (ATC)	Mile	\$ 2,070,000			2.27	\$ 4,704,545			2.27	\$ 4,704,545			2.27	\$ 4,704,545			2.27	\$ 4,704,545	
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			2.27	\$ 1,227,273			2.27	\$ 1,227,273			2.27	\$ 1,227,273			2.27	\$ 1,227,273	
3	Wayside Protection System	Mile	\$ 108,000			2.27	\$ 245,455			2.27	\$ 245,455			2.27	\$ 245,455			2.27	\$ 245,455	
Electrification Items																				
1	Traction Power supply	Mile	\$ 1,170,000			2.27	\$ 2,659,091			2.27	\$ 2,659,091			2.27	\$ 2,659,091			2.27	\$ 2,659,091	
2	Traction Power Distribution	Mile	\$ 1,485,000			2.27	\$ 3,375,000			2.27	\$ 3,375,000			2.27	\$ 3,375,000			2.27	\$ 3,375,000	
Subtotal						\$ 106,158,161				\$ 35,598,742				\$ 394,385,994				\$ 321,421,958		
Program Implementation Costs (per screening)						\$ 27,070,331				\$ 9,077,679				\$ 100,568,428				\$ 81,962,599		
Program Implementation Costs																				
Contingencies (per screening) (25%)						\$ 26,539,540				\$ 8,899,685				\$ 98,596,498				\$ 80,355,489		
Subtotal						\$ 159,768,033				\$ 53,576,106				\$ 593,550,921				\$ 483,740,046		
Subtotal (Rounded)						\$ 160,000,000				\$ 54,000,000				\$ 594,000,000				\$ 484,000,000		

COST ELEMENTS		UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)			
Subsection 9 (a)			Base: 2009 (3rd Quarter)	B			
				Start: 2760 + 00	End: 2808 + 00	0.91 Miles	
Subsection Dedtails						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 2760 + 00	End: 2808 + 00	0.91 Miles	
Double Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Section - Total						0.00	\$ -
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.91	\$ 4,272,873
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			0.00	\$ -
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -
Four Track Section - Total						0.00	\$ -
Four-track Section - At Grade	Mile	\$	4,200,448			0.00	\$ -
Four-Track Section - On Structure	Mile	\$	9,400,320			0.00	\$ -
Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320			0.00	\$ -
Four-Track Section - In Trench	Mile	\$	9,400,320			0.00	\$ -
Single Track - Total						0	\$ -
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -
9 Freight Double Track - At Grade	Mile	\$	2,839,552			0	\$ -
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -
Earthwork Items						7.16	\$ 66,010
1 Site Preparation - Undeveloped	Acre	\$	9,216			0	\$ -
2 Total Cut	CY	\$	6.45			0	\$ -
3 Total Fill	CY	\$	6.29			0	\$ -
4 Borrow	CY	\$	12.58			0.00	\$ -
5 Spoil	CY	\$	12.58			0.00	\$ -
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$ -
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -
8 Special Drainage Facilities	5% Earthwork						\$ 3,300
Structures, Tunnels, Walls						0.91	\$ 31,793,338
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00	\$ -
Standard Structure (4 tracks)	Mile	\$	52,459,008				\$ -
2 High Structure	Mile	\$	40,424,448				\$ -
3 Long Span Structure	Mile	\$	61,919,232				\$ -
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				\$ -
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -
9 Double Track Drill & Blast	Mile	\$	146,887,680			0	\$ -
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000				\$ -
Double Track TBM (<6 Miles)	Mile	\$	106,637,312				
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -
12 Crossovers	ea	\$	442,368				\$ -
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080			0	\$ -
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00 Miles	\$ -
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.00 Miles	\$ -
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856				\$ -
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			0	\$ -
17 Retaining Walls	Mile	\$	8,613,888			0	\$ -
18 Containment Walls	Mile	\$	5,907,456				\$ -
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -
Four Track Drill & Blast	Mile	\$	293,775,360				\$ -
Four Track Mined (Soft Soil)	Mile	\$	158,400,000				\$ -
Four Track TBM (<6 Miles)	Mile	\$	213,274,624				\$ -
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$ -
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -
Grade Separations							
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$ -
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$ -
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520				\$ -
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$ -
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$ -

COST ELEMENTS				UNIT	UNIT PRICE	Elevated Viaduct (2 tracks)		
Subsection 9 (a)				Base: 2009 (3rd Quarter)	B			
					Start: 2760 + 00	End: 2808 + 00	0.91 Miles	
Subsection Dedtails						Quant.	Cost	
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)					Start: 2760 + 00	End: 2808 + 00	0.91 Miles	
Double Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Tunnel (Mile)					Start: 0 + 00		0.00 Miles	
Four Track Trench (Mile)					Start: 0 + 00		0.00 Miles	
8	Minor Crossing Closures	ea	\$	87,040				\$ -
Building Items								
1	Intermediate Passenger Stations	Each	\$	-				\$ -
	Intermediate Passenger Stations (Diridon)	Each	\$	119,521,386			1	\$ 119,521,386
2	Terminal Passenger Stations	Each	\$	-				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000				\$ -
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000			0	\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000				\$ -
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000				\$ -
3	Maintenance Facility	Each	\$	123,921,884				\$ -
4	Parking - Structures	space	\$	-				\$ -
5	Parking - At Grade	space	\$	-				\$ -
Rail & Utility Relocation								
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896				\$ -
3	Single Track Removal	Mile	\$	130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$	1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$	464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720				\$ -
ROW (Not Included)								
ROW required for each segment								
1	Dense Urban	Acre	\$	2,786,321				\$ -
2	Urban	Acre	\$	1,371,510				\$ -
3	Dense Suburban	Acre	\$	908,134				\$ -
4	Suburban	Acre	\$	208,418				\$ -
5	Undeveloped	Acre	\$	3,642				\$ -
ROW required for Temp. Construction Easement								
1	Dense Urban	Acre						\$ -
2	Urban	Acre						\$ -
3	Dense Suburban	Acre						\$ -
4	Suburban	Acre						\$ -
5	Undeveloped	Acre						\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities								
6	Dense Urban	Acre	\$	2,786,321				\$ -
7	Urban	Acre	\$	1,371,510				\$ -
8	Dense Suburban	Acre	\$	908,134				\$ -
9	Suburban	Acre	\$	208,418				\$ -
10	Undeveloped	Acre	\$	3,642				\$ -
Environmental Mitigation = 3% Line Costs								\$ 4,669,707
System Elements								
1	Signaling (ATC)	Mile	\$	2,070,000			0.91	\$ 1,881,818
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000			0.91	\$ 490,909
3	Wayside Protection System	Mile	\$	108,000				
Electrification Items							0.91	\$ -
1	Traction Power supply	Mile	\$	1,170,000			0.91	\$ 1,063,636
2	Traction Power Distribution	Mile	\$	1,485,000			0.91	\$ 1,350,000
Subtotal								\$ 165,112,978
Program Implementation Costs (per screening)								\$ 42,103,809
Program Implementation Costs								
Contingencies (per screening) (25%)								\$ 41,278,245
Subtotal								\$ 248,495,032
Subtotal (Rounded)								\$ 248,000,000

Subsection 9(b)	9(b)A (2.3 miles)	9(b)B (0.9 miles)
	Deep Tunnel (HST Only)	Deep Tunnel (HST Only)
Capital Cost (\$2009 in Millions) does not include ROW	\$484 (2 tracks)	\$383 (2 tracks)
Acquisition Cost of Permanent ROW	Lowest	Lowest
Notes:		1. HST San Jose station.



COST ELEMENTS			UNIT	UNIT PRICE	Tunnel (2 tracks) (HST only)			
Subsection 9(b)				Base: 2009 (3rd Quarter)	A			
					Start: 2640 + 00	End: 2760 + 00	2.27 Miles	
Subsection Dedtails						Quant.	Cost	
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)				Start: 2640 + 00	End: 2760 + 00	2.27 Miles		
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles		
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Section - Total								
1 Double Track Section - At Grade	Mile	\$	2,100,224			0.00	\$ -	
2 Double Track Section - On Structure	Mile	\$	4,700,160			0.00	\$ -	
3 Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160			2.27	\$ 10,682,182	
4 Double Track Section - In Trench	Mile	\$	4,700,160			0.00	\$ -	
Four Track Section - Total								
Four-track Section - At Grade			Mile	\$	4,200,448	0.00	\$ -	
Four-Track Section - On Structure			Mile	\$	9,400,320	0.00	\$ -	
Four-Track Section - In Tunnel or Subway			Mile	\$	9,400,320	0.00	\$ -	
Four-Track Section - In Trench			Mile	\$	9,400,320	0.00	\$ -	
Single Track - Total								
5 Single Track Section - At Grade	Mile	\$	1,549,312			0	\$ -	
6 Single Track Section - On structure	Mile	\$	2,350,080			0	\$ -	
7 Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080			0	\$ -	
8 Single Track Section - In Trench	Mile	\$	2,350,080			0	\$ -	
Freight Double Track - At Grade			Mile	\$	2,839,552	0	\$ -	
10 Freight Single Track - At Grade	Mile	\$	1,549,312			0	\$ -	
Earthwork Items								
1 Site Preparation - Undeveloped	Acre	\$	9,216			0.00	\$ -	
2 Total Cut	CY	\$	6.45			977777.78	\$ 6,307,840	
3 Total Fill	CY	\$	6.29			0.00	\$ -	
4 Borrow	CY	\$	12.58			0.00	\$ -	
5 Spoil	CY	\$	12.58			977777.78	\$ 12,300,288	
6 Landscape erosion Control	Acre	\$	6,144			0.00	\$ -	
7 Security Fencing (Both sides of ROW)	Mile	\$	144,384			0.00	\$ -	
8 Special Drainage Facilities	5% Earthwork						\$ 930,406	
Structures, Tunnels, Walls								
1 Standard Structure (2 tracks)	Mile	\$	34,972,672			0.00 Miles	\$ -	
Standard Structure (4 tracks)	Mile	\$	52,459,008			0.00 Miles		
2 High Structure	Mile	\$	40,424,448				\$ -	
3 Long Span Structure	Mile	\$	61,919,232				\$ -	
4 Waterway Crossing - Primary	Mile	\$	85,342,208				\$ -	
5 Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408			0.01	\$ 697,344	
6 Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264				\$ -	
7 Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312				\$ -	
8 Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896				\$ -	
9 Double Track Drill & Blast	Mile	\$	146,887,680				\$ -	
10 Double Track Mined (Soft Soil)	Mile	\$	79,200,000			0.00	\$ -	
Double Track TBM (<6 Miles)	Mile	\$	106,637,312			2.27	\$ 242,357,527	
Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896				\$ -	
11 Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952				\$ -	
12 Crossovers	ea	\$	442,368				\$ -	
13 Cut & Cover Double Track Tunnel	Mile	\$	131,246,080				\$ -	
14 Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224			0.00	\$ -	
Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336			0.00		
15 Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904				\$ -	
Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856					
16 Mechanical & Electrical for Tunnels	Mile	\$	11,848,704			2.27	\$ 26,928,873	
17 Retaining Walls	Mile	\$	8,613,888			0.00	\$ -	
18 Containment Walls	Mile	\$	5,907,456				\$ -	
19 Single Track Cut and Cover Subway	Mile	\$	131,246,080				\$ -	
Four Track Drill & Blast	Mile	\$	293,775,360				\$ -	
Four Track Mined (Soft Soil)	Mile	\$	158,400,000			0.00	\$ -	
Four Track TBM (<6 Miles)	Mile	\$	213,274,624			0.00	\$ -	
Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792				\$ -	
Four Track Cut & Cover Tunnel	Mile	\$	262,492,160			0.00	\$ -	
Grade Separations								
1 Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352				\$ -	
Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528				\$ -	
2 Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680				\$ -	
3 Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568				\$ -	
4 Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520			0	\$ -	
5 Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216				\$ -	
Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816				\$ -	
6 Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328				\$ -	
7 Street Bridging HSR Trench	ea	\$	1,398,784				\$ -	

COST ELEMENTS		UNIT	UNIT PRICE	Tunnel (2 tracks) (HST only)			
Subsection 9(b)			Base: 2009 (3rd Quarter)	A			
				Start: 2640 + 00	End: 2760 + 00	2.27 Miles	
Subsection Dedtails						Quant.	Cost
Double Track At-Grade (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Double Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Double Track Tunnel (Mile)				Start: 2640 + 00	End: 2760 + 00	2.27 Miles	
Double Track Trench (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Construction/Reconstruction At-Grade (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Elevated (Mile)				Start: 0 + 00		0.00 Miles	
Four Track Tunnel (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
Four Track Trench (Mile)				Start: 0 + 00	End: 0 + 00	0.00 Miles	
8	Minor Crossing Closures	ea	\$ 87,040				\$ -
Building Items							
1	Intermediate Passenger Stations	Each	\$ -				\$ -
2	Terminal Passenger Stations	Each	\$ -				\$ -
	Caltrain Passenger Station - At-Grade	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - On Structure	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$15,000,000				\$ -
	Caltrain Passenger Station - In Trench	Each	\$15,000,000			0	\$ -
3	Maintenance Facility	Each	\$ 123,921,884				\$ -
4	Parking - Structures	space	\$ -				\$ -
5	Parking - At Grade	space	\$ -				\$ -
Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$ 2,000,896				\$ -
2	Single Track Relocation (Permanent)	Mile	\$ 2,000,896				\$ -
3	Single Track Removal	Mile	\$ 130,048				\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$ 1,548,288				\$ -
5	Major Utility Relocations - Urban	Mile	\$ 1,084,416				\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$ 775,168				\$ -
7	Major Utility Relocations - Suburban	Mile	\$ 464,896				\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$ 30,720				\$ -
ROW (Not Included)							
ROW required for each segment							
1	Dense Urban	Acre	\$ 2,786,321				\$ -
2	Urban	Acre	\$ 1,371,510				\$ -
3	Dense Suburban	Acre	\$ 908,134				\$ -
4	Suburban	Acre	\$ 208,418				\$ -
5	Undeveloped	Acre	\$ 3,642				\$ -
ROW required for Temp. Construction Easement							
1	Dense Urban	Acre					\$ -
2	Urban	Acre					\$ -
3	Dense Suburban	Acre					\$ -
4	Suburban	Acre					\$ -
5	Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$ 2,786,321				\$ -
7	Urban	Acre	\$ 1,371,510				\$ -
8	Dense Suburban	Acre	\$ 908,134				\$ -
9	Suburban	Acre	\$ 208,418				\$ -
10	Undeveloped	Acre	\$ 3,642				\$ -
Environmental Mitigation = 3% Line Costs							\$ 9,006,134
System Elements							
1	Signaling (ATC)	Mile	\$ 2,070,000			2.27	\$ 4,704,545
2	Communications (w/ Fiber Optic Backbone)	Mile	\$ 540,000			2.27	\$ 1,227,273
3	Wayside Protection System	Mile	\$ 108,000			2.27	\$ 245,455
Electrification Items							
1	Traction Power supply	Mile	\$ 1,170,000			2.27	\$ 2,659,091
2	Traction Power Distribution	Mile	\$ 1,485,000			2.27	\$ 3,375,000
Subtotal							\$ 321,421,958
Program Implementation Costs (per screening)							\$ 81,962,599
Program Implementation Costs							
Contingencies (per screening) (25%)							\$ 80,355,489
Subtotal							\$ 483,740,046
Subtotal (Rounded)							\$ 484,000,000

COST ELEMENTS				UNIT	UNIT PRICE	Tunnel (2 tracks) (HST only)				
Subsection 9(b)					Base: 2009 (3rd Quarter)	B				
						Start: 2760 + 00	End: 2809 + 00	0.93 Miles		
Subsection Dedtails							Quant.	Cost		
Double Track At-Grade (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		
Double Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		
Double Track Tunnel (Mile)						Start: 2760 + 00	End: 2809 + 00	0.93 Miles		
Double Track Trench (Mile)						Start: 0 + 00		0.00 Miles		
Four Track Construction/Reconstruction At-Grade (Mile)						Start: 0 + 00		0.00 Miles		
Four Track Elevated (Mile)						Start: 0 + 00		0.00 Miles		
Four Track Tunnel (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		
Four Track Trench (Mile)						Start: 0 + 00	End: 0 + 00	0.00 Miles		
	Double Track Section - Total									
1	Double Track Section - At Grade	Mile	\$	2,100,224				0.00	\$	-
2	Double Track Section - On Structure	Mile	\$	4,700,160				0.00	\$	-
3	Double Track Section - In Tunnel or Subway	Mile	\$	4,700,160				0.93	\$	4,361,891
4	Double Track Section - In Trench	Mile	\$	4,700,160				0.00	\$	-
	Four Track Section - Total									
	Four-track Section - At Grade	Mile	\$	4,200,448				0.00	\$	-
	Four-Track Section - On Structure	Mile	\$	9,400,320				0.00	\$	-
	Four-Track Section - In Tunnel or Subway	Mile	\$	9,400,320				0.00	\$	-
	Four-Track Section - In Trench	Mile	\$	9,400,320				0.00	\$	-
	Single Track - Total									
5	Single Track Section - At Grade	Mile	\$	1,549,312				0	\$	-
6	Single Track Section - On structure	Mile	\$	2,350,080				0	\$	-
7	Single Track Section - In Tunnel or Subway	Mile	\$	2,350,080				0	\$	-
8	Single Track Section - In Trench	Mile	\$	2,350,080				0	\$	-
9	Freight Double Track - At Grade	Mile	\$	2,839,552				0	\$	-
10	Freight Single Track - At Grade	Mile	\$	1,549,312				0	\$	-
	Earthwork Items									
1	Site Preparation - Undeveloped	Acre	\$	9,216				0.00	\$	-
2	Total Cut	CY	\$	6.45				399259.26	\$	2,575,701
3	Total Fill	CY	\$	6.29				0.00	\$	-
4	Borrow	CY	\$	12.58				0.00	\$	-
5	Spoil	CY	\$	12.58				399259.26	\$	5,022,618
6	Landscape erosion Control	Acre	\$	6,144				0.00	\$	-
7	Security Fencing (Both sides of ROW)	Mile	\$	144,384				0.00	\$	-
8	Special Drainage Facilities	5% Earthwork							\$	379,916
	Structures, Tunnels, Walls									
1	Standard Structure (2 tracks)	Mile	\$	34,972,672				0.00 Miles	\$	-
	Standard Structure (4 tracks)	Mile	\$	52,459,008				0.00 Miles		
2	High Structure	Mile	\$	40,424,448					\$	-
3	Long Span Structure	Mile	\$	61,919,232					\$	-
4	Waterway Crossing - Primary	Mile	\$	85,342,208					\$	-
5	Waterway Crossing - Secondary (Irrigation Canal)	Mile	\$	92,049,408				0.01	\$	697,344
6	Twin Single Track Drill&Blast (<6 Miles)	Mile	\$	142,731,264					\$	-
7	Twin Single Track TBM (<6 Miles)	Mile	\$	106,637,312					\$	-
8	Twin Single Track TBM w/3rd Tube (<6 Miles)	Mile	\$	176,720,896					\$	-
9	Double Track Drill & Blast	Mile	\$	146,887,680					\$	-
10	Double Track Mined (Soft Soil)	Mile	\$	79,200,000				0.00	\$	-
	Double Track TBM (<6 Miles)	Mile	\$	106,637,312				0.93	\$	98,962,657
	Double Track TBM w/3rd Tube (>6 Miles)	Mile	\$	176,720,896					\$	-
11	Seismic Chamber (Drill & Blast/Mined)	ea	\$	126,205,952					\$	-
12	Crossovers	ea	\$	442,368					\$	-
13	Cut & Cover Double Track Tunnel	Mile	\$	131,246,080					\$	-
14	Trench Long (2 tracks) (1000 ft+)	Mile	\$	57,524,224				0.00	\$	-
	Trench Long (4 tracks) (1000 ft+)	Mile	\$	86,286,336				0.00		
15	Trench Short (2 tracks) (<1000 ft)	Mile	\$	78,843,904					\$	-
	Trench Short (4 tracks) (<1000 ft)	Mile	\$	118,265,856						
16	Mechanical & Electrical for Tunnels	Mile	\$	11,848,704				0.93	\$	10,995,956
17	Retaining Walls	Mile	\$	8,613,888				0.00	\$	-
18	Containment Walls	Mile	\$	5,907,456					\$	-
19	Single Track Cut and Cover Subway	Mile	\$	131,246,080					\$	-
	Four Track Drill & Blast	Mile	\$	293,775,360					\$	-
	Four Track Mined (Soft Soil)	Mile	\$	158,400,000					\$	-
	Four Track TBM (<6 Miles)	Mile	\$	213,274,624					\$	-
	Four Track TBM w/3rd Tube (>6 Miles)	Mile	\$	353,441,792					\$	-
	Four Track Cut & Cover Tunnel	Mile	\$	262,492,160				0.00	\$	-
	Grade Separations									
1	Roadway Crossing HSR - 4 Lane Roadway Under 2 Tracks (Urban)	ea	\$	13,284,352					\$	-
	Roadway Crossing HSR - 4 Lane Roadway Under 4 Tracks (Urban)	ea	\$	19,926,528					\$	-
2	Roadway Crossing HSR - 2 Lane Roadway Under 4 Tracks (Suburban)	ea	\$	2,759,680					\$	-
3	Roadway Crossing HSR - 2 Lane Roadway Under 2 Tracks (Undeveloped)	ea	\$	2,029,568					\$	-
4	Roadway Crossing HSR - 4 Lane Roadway Over 4 Tracks (Urban)	ea	\$	3,563,520					\$	-
5	Roadway Crossing HSR - 4 Lane Roadway Over 2 Tracks (Suburban)	ea	\$	3,593,216					\$	-
	Roadway Crossing HSR - 2 Lane Roadway Over 4 Tracks (Urban)	ea	\$	2,850,816					\$	-
6	Roadway Crossing HSR - 2 Lane Roadway Over 2 Tracks (Undeveloped)	ea	\$	3,171,328					\$	-
7	Street Bridging HSR Trench	ea	\$	1,398,784					\$	-

COST ELEMENTS			UNIT	UNIT PRICE	Tunnel (2 tracks) (HST only)		
Subsection 9(b)				Base: 2009 (3rd Quarter)	B		
					Start: 2760 + 00	End: 2809 + 00	0.93 Miles
Subsection Dedtails						Quant.	Cost
Double Track At-Grade (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles
Double Track Elevated (Mile)					Start: 0 + 00		0.00 Miles
Double Track Tunnel (Mile)					Start: 2760 + 00	End: 2809 + 00	0.93 Miles
Double Track Trench (Mile)					Start: 0 + 00		0.00 Miles
Four Track Construction/Reconstruction At-Grade (Mile)					Start: 0 + 00		0.00 Miles
Four Track Elevated (Mile)					Start: 0 + 00		0.00 Miles
Four Track Tunnel (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles
Four Track Trench (Mile)					Start: 0 + 00	End: 0 + 00	0.00 Miles
8	Minor Crossing Closures	ea	\$	87,040			\$ -
Building Items							
1	Intermediate Passenger Stations	Each	\$	-			\$ -
	Intermediate Passenger Stations (Diridon)	Each	\$	119,521,386		1	119,521,386
2	Terminal Passenger Stations	Each	\$	-			\$ -
	Caltrain Passenger Station - At-Grade	Each	\$	15,000,000			\$ -
	Caltrain Passenger Station - On Structure	Each	\$	15,000,000			\$ -
	Caltrain Passenger Station - In Tunnel or Subway	Each	\$	15,000,000			\$ -
	Caltrain Passenger Station - In Trench	Each	\$	15,000,000		0	\$ -
3	Maintenance Facility	Each	\$	123,921,884			\$ -
4	Parking - Structures	space	\$	-			\$ -
5	Parking - At Grade	space	\$	-			\$ -
Rail & Utility Relocation							
1	Single Track Relocation (Temporary)	Mile	\$	2,000,896			\$ -
2	Single Track Relocation (Permanent)	Mile	\$	2,000,896			\$ -
3	Single Track Removal	Mile	\$	130,048			\$ -
4	Major Utility Relocations - Dense Urban	Mile	\$	1,548,288			\$ -
5	Major Utility Relocations - Urban	Mile	\$	1,084,416			\$ -
6	Major Utility Relocations - Dense Suburban	Mile	\$	775,168			\$ -
7	Major Utility Relocations - Suburban	Mile	\$	464,896			\$ -
8	Major Utility Relocations - Undeveloped	Mile	\$	30,720			\$ -
ROW (Not Included)							
ROW required for each segment							
1	Dense Urban	Acre	\$	2,786,321			\$ -
2	Urban	Acre	\$	1,371,510			\$ -
3	Dense Suburban	Acre	\$	908,134			\$ -
4	Suburban	Acre	\$	208,418			\$ -
5	Undeveloped	Acre	\$	3,642			\$ -
ROW required for Temp. Construction Easement							
1	Dense Urban	Acre					\$ -
2	Urban	Acre					\$ -
3	Dense Suburban	Acre					\$ -
4	Suburban	Acre					\$ -
5	Undeveloped	Acre					\$ -
Right-of-Way Required for Stations, Maintenance & Parking Facilities							
6	Dense Urban	Acre	\$	2,786,321			\$ -
7	Urban	Acre	\$	1,371,510			\$ -
8	Dense Suburban	Acre	\$	908,134			\$ -
9	Suburban	Acre	\$	208,418			\$ -
10	Undeveloped	Acre	\$	3,642			\$ -
Environmental Mitigation = 3% Line Costs							\$ 7,275,524
System Elements							
1	Signaling (ATC)	Mile	\$	2,070,000		0.93	\$ 1,921,023
2	Communications (w/ Fiber Optic Backbone)	Mile	\$	540,000		0.93	\$ 501,136
3	Wayside Protection System	Mile	\$	108,000		0.93	\$ 100,227
Electrification Items							
1	Traction Power supply	Mile	\$	1,170,000		0.93	\$ 1,085,795
2	Traction Power Distribution	Mile	\$	1,485,000		0.93	\$ 1,378,125
Subtotal							\$ 254,779,300
Program Implementation Costs (per screening)							\$ 64,968,722
Program Implementation Costs							
Contingencies (per screening) (25%)							\$ 63,694,825
Subtotal							\$ 383,442,847
Subtotal (Rounded)							\$ 383,000,000